NM - 22

MONITORING REPORTS

PROPOSAL

YEAR(S):

JAN. 31, 2001

PROJECT:
INVESTIGATION, CLEANUP AND ENVIRONMENTAL REMEDIATION
OF THE GOODWIN TREATING PLANT

Offeror Name: Amec

Project Approach (75): _____

Project Plan (150): _____

Experience:

Proposed project staff experence in oil field cleanup/remediation (150):

_____

Offerors Organizational relevant experience (175): _____

References:

Corporate(75): _____

Staff (75): _____

Cost (300): 228,580.92

Turnkey: _____

Itemized supplemental: _____

Total points : _____

Letter of transmittal - Ok
Organization of proposal complete - Ok

Round 1

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
NEW MEXICO OIL CONSERVATION DIVISION

INVESTIGATION, CLEANUP AND ENVIRONMENTAL REMEDIATION OF THE GOODWIN TREATING PLANT LEA COUNTY, NEW MEXICO

AMEC PROPOSAL NO. PF01-0118

amec

31 January 2001
AMEC Proposal No. PF01-0118

State of New Mexico
Energy, Minerals, and Natural Resources Department
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, New Mexico 87505

Attention: Ms. Martyne Kieling

RE: INVESTIGATION, CLEANUP, AND ENVIRONMENTAL REMEDIATION
GOODWIN TREATING PLANT FACILITY
LEA COUNTY, NEW MEXICO

AMEC Earth & Environmental, Inc. (AMEC) is pleased to provide you with the following proposal for continuing investigation, cleanup, and environmental remediation of the Goodwin Treating Plant (the Site) located in Lea County, New Mexico. AMEC performed the initial investigation at the Site during 23 and 24 October, 2000. This proposal is in response to the Request for Proposal (RFP) from the New Mexico Oil Conservation Division from dated 11 December 2000 for the scope of services stated above.

In submitting this proposal, AMEC will be the prime contractor for this project. We have assembled a team of experienced and qualified personnel and contractors to complete this project on a timely and cost effective schedule. We believe that given our knowledge of the Goodwin Plant site conditions, our personnel's and corporate experience with the oil and gas industry, and with our local subcontractors, we will perform to your highest expectations.

The principal contact with AMEC who will be responsible for execution of this contract and contractually obligate this firm is Mr. Fred Schelby, P.E., Manager of Engineering for the AMEC Albuquerque Office. He may be contacted at (505) 821-1801. EMNRD-OCD staff may also contact Mr. Bob Wilcox, P.G. for clarification of this proposal. He may also be contacted at (505) 821-1801.

AMEC accepts the Conditions of Governing Procurement stated in Section II and have received all known amendments to this RFP. Should you have any questions, please feel free to contact our office.

Respectfully submitted,
AMEC Earth & Environmental, Inc.

Bob Wilcox

Bob Wilcox, C.P.G.
Senior Project Manager

Reviewed by:

Fred Schelby

Fred Schelby, P.E.
Manager of Engineering

BW:rrg

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PROFESSIONAL SERVICES PROPOSAL
INVESTIGATION, CLEANUP AND ENVIRONMENTAL REMEDIATION
OF THE GOODWIN TREATING PLANT
STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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PROFESSIONAL SERVICES PROPOSAL
INVESTIGATION, CLEANUP AND ENVIRONMENTAL REMEDIATION
OF THE GOODWIN TREATING PLANT
STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

PROPOSAL INTRODUCTION

AMEC Earth & Environmental, Inc. (AMEC) hereby submits this proposal to the Energy, Minerals and Natural Resources Department New Mexico Oil Conservation Division (EMNRD-OCD) for continuing investigation, cleanup and environmental remediation of the Goodwin Treating Plant (the Site) located in Lea County, New Mexico. AMEC performed the initial investigation at the Site during 23 and 24 October, 2000. This proposal is in response to the Request for Proposal (RFP) from the EMNRD-OCD dated 11 December, 2000.

In submitting this proposal, AMEC will be the prime contractor for this project. We have assembled a team of experienced and qualified personnel and sub contractors to complete this project on a timely and cost effective schedule. We believe that given our knowledge of the Goodwin Plant site conditions, our personnel's and corporate experience with the oil and gas industry, and with our local subcontractors, we will perform to your highest expectations.

Goodwin Treating Plant History

The Goodwin Treatment Plant was a produced salt water and tank bottom treatment plant and was formerly owned by the Petro-Thermo Corporation and is located near Hobbs, New Mexico. A Site location Map is shown as Figure 1, Appendix A. The plant was closed by order of the OCD on 26 March 1996 and had been inactive for over six months. The property is currently owned by the State of New Mexico.

Structures at the facility include 23 steel and redwood tanks with buried drum or wooden box sumps, two insulated treaters, six empty drums, buried piping, and emergency overflow pit, two suspect pit areas and associated plant equipment and refuse such as tank bottoms, pipe, tires, catwalk, and a pump and motor. Above ground electrical utilities and below ground utilities including and underground gas line are present at the Site. A Site Plan is presented as Figure 2, Appendix A.

Information provided by the OCD estimates that ground-water occurs between 45 to 60 feet below ground surface and flow direction is estimated to be toward the southeast.

AMEC conducted a Phase I Investigation at the Site for the EMNRD-OCD on 23 and 24 October, 2000. The Investigation inventoried the content of the existing 23 tanks to estimate the amount of recyclable solids and liquids, estimated the amount of contaminated soil, performed a survey for the presence of naturally occurring radioactive material (NORM), and performed an asbestos survey on the insulation material on the north and south treaters.

Estimates of volume and type of material in the tanks were specified in AMEC's Phase 1 Report. Tanks, sludge, liquids and piping at the referenced facility were surveyed for the presence of NORM by a trained Radiation Safety Officer and NORM Inspector. Field readings of over 50 micro-Roentgens per hour (uR/hr) were obtained at locations shown on the attached site map. These readings of over 50 uR/hr prompted the EMNRD-OCD to require AMEC to collect laboratory samples. The samples were collected from above ground storage tank (AST) No. 112, soil pile No. 123 and a composite sample collected from AST Nos. 106, 113 and 114. These samples were collected on 24 October, 2000 by the NORM inspector and submitted to the EMNRD-OCD contract laboratory, Trace Analysis, Inc. located in Lubbock TX. Analytical testing for radium 226, radium 228 and lead 210 were performed. Tank bottom material in AST 112 contained 47.28 pCi/gm of radium 226.

Entry for the north and south treaters was not possible during the initial investigation to determine the contents. The volume of hydrocarbon contaminated soils in the on site soil pile and around the tanks is estimated to be 1450 cubic yards.

Samples from suspect asbestos materials on the north and south treaters were collected on 23 October, 2000 and submitted to Trace Analysis for determination of asbestos content. The laboratory test results indicated that the materials do not contain asbestos fibers.

PROPOSAL TECHNICAL SPECIFICATIONS

As requested in the RFP, the scope of services for the investigation, demolition of facilities and remediation at the Goodwin Plant will include the following items specified in the RFP:

(1) Investigation of the vertical extent of total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, and total xylenes (BTEX) and chloride in the emergency overflow pit.

(2) Installation of a ground water monitor well at the emergency overflow pit.

(3) Collection of one ground water sample from the monitor well.

(4) Performance of a NORM Survey by a New Mexico Environment Department (NMED) licensed NORM inspector, management of NORM material, proper permitting, transportation and disposal of NORM waste.

(5) Survey of the waste within all treaters and tanks for NORM using field detection equipment. Appropriate samples for NORM will be collected. If results are above regulatory levels, the materials will be disposed of as regulated NORM waste.

(6) Remove, recycle, or disposal of fluids in tanks at an EMNRD-OCD-approved waste management facility.

(7) Removal and remediation of solids in tanks at an EMNRD-OCD-approved waste management facility.

(8) Remove and recycle of all surplus equipment such as tanks, vessels, treaters, drums, underground pipes, hardware, and debris such as pipes, drums, tires, catwalks, pumps and motors at an EMNRD-OCD approved waste management facility or recycler.

(9) Removal and remediation of hydrocarbon contaminated soils above applicable standards at a approved EMNRD-OCD waste management facility.

(10) Investigation of hydrocarbon and chloride contaminated soils below each tank/sump, treater and tank bottom soil pile.

(11) Backfill of all excavations with clean soil.

(12) Preparation and submittal of a Phase 1 report to the EMNRD-OCD documenting items 1 through 3.

(13) Preparation and submittal of a Phase 2 report to the EMNRD-OCD documenting items 4 and 5.

(14) Preparation and submittal of a Phase 3 report to the EMNRD-OCD documenting items 6 through 11.

Project Approach
Site Safety Plan

Prior to beginning work at the Site, AMEC will prepare a site-specific Health and Safety Plan (HASP) following 29 CFR §1910.120. The HASP will to include NORM safety procedures as well as confined space entry protocols. AMEC will organize a meeting of all subcontractors and the EMNRD-OCD prior to the commencement of work at the Site to review and discuss the HASP in detail. The HASP will be provided for review by all members of the field team and any visitors present during the field program.

Project Approach - Item -1 -
Emergency Overflow Pit Soil Boring and Sampling

As specified in the RFP, the vertical TPH, BTEX and chloride concentrations will be investigated by installing a boring to the ground water table with an air-rotary drilling rig. Samples will be obtained between three to five feet below ground surface (bgs) with a split spoon sampler and then at 10–foot intervals thereafter. Each sample interval will be screened using heated headspace methods with a calibrated photoionization detector (PID). One soil sample from each interval will be obtained and sent to the analytical laboratory for chloride analysis. In addition, one sample from the 3-5 foot interval, one sample from the interval with the highest PID reading and one sample from the bottom of the hole/top of the water table will be sent to the laboratory and tested for full range TPH by EPA Method 8015, BTEX by EPA Method 8021 and chloride by EPA Method 300. As stated in the RFP, the boring will be drilled to an expected depth of 60 feet bgs, or ten feet into groundwater.

During the soil boring/well installation, AMEC will provide a field geologist to oversee drilling operations. The geologist will describe the material types in accordance with the Unified Soil Classification System (USCS), and collected grab samples for additional material classification verification. The field geologist will determine when the borings are of sufficient depth, design the monitor well to be installed, and oversee its construction.

Project Approach - Item 2-
Emergency Overflow Pit Monitor Well Installation

The proposed monitor well be installed to a depth of 60 feet or 10 feet into groundwater. The well will be constructed of Schedule 40, 2-inch diameter PVC and with the following specifications:

- 10 feet of 0.010 PVC screen below the top of groundwater level.
- 5 feet of 0.010 PVC screen above the top of groundwater level.
- gravel pack (10/20 silica sand) from the bottom of the hole to 2-3 feet above the top of the well screen.
- 2 to 3 feet bentonite plug placed on top of gravel pack.
- cement grout containing 3 to 5 % bentonite to surface.
- concrete pad around well surface with locking three (3) foot riser.

The proposed well construction details are shown in Figure 3, Appendix A.

After completion of the well, it will be developed using a hand bailer to surge and purge until the temperature, conductivity and pH have stabilized and suspended solids are at a minimum. The well will be allowed to recharge overnight, then 3 casing volumes will be purged and water samples collected. These samples will be sent for laboratory analysis for BTEX, TPH, total dissolved solids (TDS), major cations/anions, New Mexico Water Quality Control Commission (NMWQCC) metals and polycyclic aromatic hydrocarbons (PAHs).

AMEC proposes the services of Eades Drilling of Hobbs will provide the drilling services for the project.

Project Approach - Item 3- Ground Water Sampling

The well will be allowed to recharge a minimum of 24 hours after the well is developed, then 3 casing volumes will be purged and water samples collected, within 48 hours of development. These samples will be sent for laboratory analysis for BTEX by EPA Method 8021, total dissolved solids (TDS), major cations/anions by EPA 310.1, EPA 325.2, EPA 375.3, EPA 6010 and New Mexico Water Quality Control Commission (NMWQCC) metals by EPA Method EPA 6000 series and PAHs by EPA Method 8270.

The groundwater samples will be kept in glass containers supplied by the testing laboratory. Each sample container will be labeled with the following information: well number, sample depth, date, and time. The samples will be sealed, labeled, placed on ice, cooled to approximately 4 degrees Celsius, and held under strict chain of custody until being delivered to the analytical laboratory.

Project Approach - Item 4- NORM Protocols

All NORM survey activities at the Site will be conducted by a NMED Radiation Safety Program (RSP)-certified Radiation Safety Officer (RSO) and Oil and Gas NORM inspector. AMEC proposes to subcontract these services to Safety & Environmental Solutions, Inc (SES) of Hobbs, New Mexico and/or Lotus, L.L.C., of Andrews, Texas. The AMEC Project Manager and Site Supervisor will also be trained as RSOs and NORM Oil and Gas inspectors by an NMED-RSP-approved instructor prior to the commencement of field activities. Qualifications of these AMEC personnel are present in the AMEC Key Resume section of this proposal. The NORM survey, handling of NORM waste, and disposal of NORM material will be conducted following Oil Conservation Commission Order R-10609 and 20 NMAC 3.1 Subpart 14 and Rules of the Rocky Mountain Low-Level Radioactive Waste Board. All necessary permits for handling, temporary storage, transport and disposal of the NORM waste will be acquired. NORM-specific and properly calibrated equipment will be used for the survey. A firm cost for obtaining a permit from the Rocky Mountain Low-Level Radioactive Waste Board cannot be given since the amount of waste cannot be determined at this time. The HASP will also contain NORM specific information and safety protocols.

Project Approach - Item 5- NORM Survey

The NORM survey will be conducted by personnel from SES and/or Lotus. Both firms employ NMED-RSP certified personnel who are experienced and qualified to perform NORM surveys. SES and Lotus will act as a subcontractor to AMEC for these services.

Waste within all tanks and treaters will be surveyed with a calibrated instrument as the facilities are opened. Readings over 50 uR/hr or 0.5 uSv/hr will facilitate collection of representative samples of sludge/ scale for delivery to an EMNRD-OCD approved laboratory, for Radium 226 analysis by EPA Method 903.1. If results from the laboratory testing indicate that a sample exceeds 30 picocuries per gram, the waste will be disposed at a licenced NORM disposal facility as regulated NORM waste. Information regarding this licensed facility is presented in the subcontractor information section of this proposal.

At this time, the total number of NORM samples to be tested at an analytical laboratory are unknown. AMEC will provide a unit rate in the budget section.

Survey Equipment and Methodologies

AMEC's subcontractors will utilize a Ludlum Model 19 Micro R Survey Meter to measure:

- Gamma radiation levels at external equipment surfaces;
- Gamma radiation levels from accumulations of scale and sludge;
- Gamma radiation levels from soil;
- Gamma radiation levels from internal equipment surfaces;
- Alpha or Beta radioactivity contamination levels on internal surfaces;
- NORM concentrations in fluids;
- Alpha, Beta and Gamma radiation levels for personnel and equipment decontamination.

External Equipment Surfaces

The survey meter, with response switch set for the "fast" setting, will be held within 1 centimeter of the external surface of the equipment being surveyed to detect the presence of NORM contamination. Areas that have been identified as being NORM contaminated will be surveyed with the meter response switch set in the "slow" setting in order to obtain a more accurate reading. Equipment with a reading in excess of 50 uR/hr will be identified for further evaluation. Any equipment with readings in excess of regulatory limits will be handled, treated and disposed as NORM.

If scale deposits are removed from the equipment, the scale and sludge will be surveyed to determine if the 50 uR/hr criteria is exceeded. The survey instrument will be placed in contact with the base of a one-liter plastic or glass container filled with the material. If the deposits exceed the 50 uR/hr criteria, the deposits will be handled, treated and disposed as NORM.

Accumulations of Scale and Sludge

Scale and sludge containing NORM will be accumulated in drums, surveyed, labeled appropriately, and stored according to the storage guidelines discussed later in this document.

Soil

Soil surveys will be conducted over the subject property on a delineated grid. The grid spacing will be optimized for the size of the area surveyed. Generally, the smaller the area, the smaller the grid spacing. Under no circumstances will the grid spacing exceed 30 feet. Areas with elevated readings will be identified and marked for sampling. The survey meter will be held at waist height (30" - 36") above the ground while conducting the survey. Documentation of the survey will include the size of the grid and the sample locations within the grid. Soil samples will be collected from all areas exhibiting readings in excess of 50 uR/hr above the background levels. These samples will be

shipped to a lab approved by the NMED for analysis. Soil samples from uncontaminated surrounding areas will be collected in order to document background levels for total radium.

Internal Equipment Surfaces

Survey meter will be held not farther than one centimeter from the internal surface of the equipment being surveyed without coming in contact with the internal surface. The following locations will be surveyed:

- Both ends of tubulars and pipes;
- All openings in "T"s, manifolds, and calculated joints and fixtures;
- Both ends of the throats of valves; and
- Individual deposits or accumulations within vessels and tanks. These deposits will be monitored using the one liter container.

Tubulars with a diameter of less than 6-inches will be surveyed externally using the gamma scintillation detector probe. Any readings in excess of 50 uR/hr will result in the equipment and material being handled, treated, and disposed as NORM.

Alpha/Beta Radioactivity on Internal Surfaces

Alpha/Beta radioactivity occurs on internal surfaces of vessels in gas plants. If this type of radioactivity is suspected, the survey will be conducted as the vessel is opened. The pancake G-M Detector probe will be held within one centimeter of the internal surface of the vessel. Any vessel with readings in excess of 50 µR/hr will be identified, handled, treated, and disposed as NORM.

NORM in Fluids

Representative samples will be taken of fluids suspected of containing radioactive elements and analyzed by a lab approved by the EMNRD-OCD.

Personnel External Radiation Exposures

On-site worker's external radiation exposures will be evaluated by the wearing of thermoluminescent dosimeter (TLD) badges. Badges will be worn by workers involved in the conduct of any procedures involving the surveying for NORM contamination. The TLD badges will be sent to the supplier quarterly or at the completion of the project, whichever occurs first, and analyzed for levels of radiation exposure. The records regarding personnel exposures will be maintained by our subcontractors for the period of employment of each worker plus thirty (30) years. In addition to the TLD badges, the G-M probe will be used periodically to survey the work area and records reflecting work location and work time will be maintained.

Personnel Internal Radiation Exposures

On-site worker's internal radiation exposures will be controlled by the requirement that suitable respiratory and eye protection be worn by all employees performing any procedures involving the surveying for NORM contamination. In addition to these control measures, SES and Lotus personnel will submit to a bioassay evaluation at least annually.

Instrument Care, Maintenance and Calibration

In order to insure accuracy of the survey instrument, the following procedures will be required:

- The meter will be kept clean and free of NORM contamination at all times;
- When not in use, the meter will be stored in its case;
- When used infrequently, the batteries will be removed from the meter;
- Connecting cables will not be sharply bent;
- Battery contacts will be kept clean;
- Care will be taken not to drop the meter or probes;

- Meter will be returned to the manufacturer semi-annually for general maintenance and calibration;
- Cables and probes will not be interchanged between meters;
- Operational checks such as battery and source checks will be performed before each use.

Records

The following records will be maintained by SES and Lotus :

- NORM surveys;
- Instrument operational checks
- Instrument maintenance and calibration records;
- Sample analytical results; and
- Thermoluminescent dosimeter analyses.

Project Approach - Item 6
Removal and Recycle/Dispose of Tank Fluids

AMEC will subcontract the removal and recycling/ disposal of non-NORM fluids in tanks at the Site to Control Recovery, Inc.(CRI) of Hobbs, New Mexico. CRI is an EMNRD-OCD-approved waste management facility. We estimate that 1,632 barrels (bbls) of fluids will be removed from the tanks using vacuum trucks at the Site. CRI will furnish vacuum trucks to transport liquids from the site to the approved recycling facility. Trucks are based locally, minimizing mobilization from yard to location and return.

Project Approach - Item 7
Removal and Remediate Tank Solids

AMEC will subcontract the removal and recycling/ disposal of solids in tanks at the Site to the EMNRD-OCD-approved facility in Hobbs unless designated as NORM material. Approximately 338 yard of solids from the tanks will be removed for landfarming to the CRI facility. We will furnish container trucks, delivery of empty containers, transportation to of loaded containers, container rental and liners for this portion of the project.

Project Approach - Item 8
Removal of Facility Equipment and Debris

AMEC will subcontract for demolition, recycling and disposal of all, steel and redwood tanks, vessels, treaters, hardware, equipment and debris not containing regulated NORM. We will provide a confined entry space crew, vacuum truck, air moving equipment, and PPE to remove non-regulated NORM liquids and solids from steel 500 bbl. tanks with the exception of tank Nos. 112, 113, & 116 and two heater treaters. The inside of all tanks with non-regulated NORM material will be cleaned prior to dismantling.

NORM material will be identified, transportation and disposal of regulated NORM materials will be subcontracted to SES and/or Lotus by AMEC. Material from tank Nos. 112, 113, 116 and others identified regulated with NORM material will be properly dismantled. The inside of tanks with regulated NORM Materials will be cleaned prior to dismantling. A NORM-trained, confined space entry crew will conduct these activities. All safety and air monitoring procedures will be maintained during the operation. Waste generated during the cleaning process will be sampled for NORM and, if necessary, will be treated as regulated NORM waste. NORM waste will be disposed at the Lotus permitted NORM disposal facility in Andrews, Texas.

The demolition and removal of the foundations of the north and south treaters and underground piping will be subcontracted to Banta Field Services, of Hobbs, New Mexico.

Project Approach - Item 9
Contaminated Soils Removal

Hydrocarbon-contaminated surface soils in excess of 100 ppm TPH, 50 ppm total BTEX and 10 ppm benzene will be removed to a depth of 5 feet bgs maximum. If depth to groundwater is found to be greater that 50 feet bgs, removal of contaminated soils will be limited to those in excess of 1,000 ppm TPH, 50 ppm total BTEX, and 10 ppm benzene with the excavation not being greater than 5 feet bgs.

AMEC will subcontract the excavation, hauling and land farming to CRI. The contaminated soils will be land farmed at their EMNRD-OCD-approved facility. As stated in the RFP, we assume for the purposes of this proposal, that 1,450 yards of soil will be excavated, hauled and landfarmed.

Project Approach - Item 10
Delineation of Hydrocarbon/Chloride Contaminated Soils

AMEC personnel will investigate the extent of TPH, BTEX and chloride beneath each tank/sump, treater and tank bottom soil pile. A calibrated PID will be used to screen soils during any excavation of soils. Samples will be collected from the bottom of each excavation and below each tank/sump or treater. To confirm clean excavation limits, a minimum of one sample with the highest PID reading at each location will be sent to a laboratory for analyses of full range TPH by EPA Method 8015, BTEX by EPA Method 8021 and chloride by EPA Method 300. Once sample results indicate the excavation limits are within EMNRD-OCD standards, the excavation will be backfilled with clean material.

For the purposes of this proposal, as stated in the RFP, AMEC assumes that 35 samples will be obtained for laboratory analyses for TPH, BTEX and chloride.

Project Approach - Item 11
Backfilling of Excavations

AMEC will subcontract to back-haul clean, recycled material from the EMNRD-OCD-approved waste land-farm. Material will be back-hauled and stockpiled during the removal of contaminated soils. The material will be backfilled in order to obtain positive runoff. AMEC understands that, if further investigation and excavation is necessary, backfilling may not be necessary for the project at this time.

Project Approach - Item 12
Phase 1 Report

AMEC will prepare and deliver a report to the EMNRD-OCD following the completion of Project Approach Item 1 - Soil boring and sampling, Item 2 - Monitor well installation, and Item 3 - groundwater sampling. The reports will be forwarded to the EMNRD-OCD one week following receipt of the laboratory results. The reports will include a summary of the field activities, a log of the soil boring, headspace results from the PID screening, monitor well construction details, depth to groundwater, and soil and groundwater samples. Once depth to groundwater is known, TPH values for final cleanup levels in surface soils will be known. Photographs will be provided to document on-site activities.

Project Approach - Item 13
Phase 2 Report

A Phase 2 report summarizing the survey and sampling for NORM materials will be issued following the completion of Project Approach Items 4 and 5

related to NORM procedures, permitting and sampling results. The report will detail all the NORM HASP procedures, the qualifications of the NORM inspectors, NORM survey protocols, and the sampling results used during the investigation. The report will document and estimate the amount of regulated NORM material which will need disposal at a NORM-permitted disposal facility. Once the quantities are known, costs can be given to the EMNRD-OCD for permitting, transportation, and disposal of the regulated NORM Waste. Photographs will be provided to document on site activities.

Project Approach - Item 14
Phase 3 Report

The Phase 3 report will detail Project Approach Items 6, 7, 8, 9, 10, and 11. The HASP procedures for confined space entries and NORM materials handling will be documented and other safety related issues will be discussed. The report will document the investigation and delineation of hydrocarbon contaminated soils and document the removal, transportation and disposition of these soils. Documentation will be provided to the EMNRD-OCD for the removal, transportation and disposal of liquids and solids from the tanks. Soil screening results, laboratory reports, excavation dimensions, the amount of soil removed and backfilled will be summarized.

The demolition procedures for all the facilities equipment will be documented as will the final disposition of the materials and any other refuse.

Recommendations for additional work, if necessary, will be discussed in the Phase 3 report. Photographs will be provided to document on site activities.

PROJECT PLAN
HASP and Initial Project Meetings

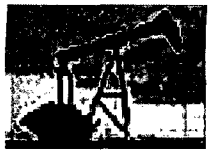
Following completion of the contract execution, AMEC will meet the EMNRD-OCD representative to discuss the project plan, the expected timetables and other appropriate project details. A site specific HASP including NORM procedures and precautions, and confined space entry procedures will be discussed.

The AMEC Project Manager and Field Supervisor will meet with all subcontractors at the Site within two weeks of execution of the contract. The HASP will be discussed and copies of the HASP will be distributed to each subcontractor. As part of the daily routine during the Goodwin Plant Project, a safety meeting will be held by the AMEC Site Supervisor prior to beginning work for the day. Site entry protocols will be discussed. Since the Site is secured by a perimeter fence and a gate at the entrance, all employees will sign in and out with the AMEC Site Supervisor to account for all persons entering and leaving the facility. The AMEC Site Supervisor will be on-site each day of the project and be the last person entering and leaving the facility. The Site gate will be locked each day following completion of activities. All personnel entering the Site will meet with the AMEC Field Supervisor prior to being allowed on site.

During the initial project meeting, the tentative schedule and timetable will be reviewed. Potential schedule conflicts will be resolved at this time to make the most efficient and cost effective use of manpower, resources and time.

PROJECT PLAN - Drilling Program

The drilling program will commence as soon as a drilling rig can be scheduled. The anticipated time frame is within two weeks of contract execution. The data obtained during the drilling will be essential for determining the TPH cleanup levels for the Site.



The soil sampling, drilling, monitor well installation and well development at the emergency overflow pit will be completed within one day. Groundwater sampling will be completed within 24 hours of well development. Sample results will be available within two weeks from laboratory receipt of the samples, and the Phase 1 report will be completed within one week from receipt of the analytical results. A three-foot riser will be installed at the wellhead in order to prevent possible standing water in the former emergency overflow pit from entering the well.

PROJECT PLAN - NORM Permitting and Survey

The NORM survey will begin within two weeks of contract execution. Given the current information on existing NORM material, the investigation and sampling is expected to take three days. The procedures stated in Project Approach - Section 5 be will followed. At his time, no costs for a specific number of samples has been provided in this proposal since the actual number of samples to be obtained is unknown. Samples obtained will be kept in containers and shipping containers supplied by the testing laboratory. Each sample container will be labeled with the following information: sample location, date, and time. The samples will be sealed, labeled, and held under strict chain of custody until delivery to the analytical laboratory.

Sample results are expected within two weeks of delivery to the laboratory. The Phase 2 report will be completed two weeks following receipt of the analytical results. After the issue of the report, AMEC will organize a meeting of EMNRD-OCD Project Manager and subcontractors to discuss the results of the NORM survey. At this time, quantities of regulated NORM material will be identified; the personnel will be designated for handling the NORM material; the procedures to be used, the method of storage, the transport, and the Lotus disposal facility will be notified. The Lotus facility will be contacted regarding the amount of NORM material to be shipped. Once quantities of NORM are known, a NORM-quantity specific permit will be obtained from the Rocky Mountain Low-Level Radioactive Water Board for shipment and transportation and disposal of the NORM material.

PROJECT PLAN
Removal /Recycling/Remediation of Fluids/Solids in Tanks

After the identification of regulated NORM materials, non-regulated waste fluids and solids within the tanks, sumps and treaters can be removed to the EMNRD-OCD approved landfarm and recycling facility. It is estimated that 1,632 barrels of liquids (15 vacuum truck loads) will be removed from the Site over a period of four working days.

Approximately 474 yards of non-regulated waste solids will be removed from the tanks for landfarming/ recycling and remediation at the CRI facility. It is estimated that the 474 yards of solids (26 truck loads) will be removed from the Site over a period of three working days.

Cleaning of the steel tanks prior to complete demolition and removal from the Site (with the exception of tank Nos. 112, 113, 116 and the two treaters) will be performed under the supervision of AMEC Field Supervisor with a confined space entry crew, vacuum truck, air moving equipment, and personal protective

equipment. Estimated time to complete the cleaning is three working days.

Total time for fluid / solids removal and cleaning tanks is estimated to be 10 working days

PROJECT PLAN
Removal /Recycling of Tanks, Treaters Foundations other Facility Materials

Dismantling and disposal of the materials below assumes that they are not regulated NORM waste.

Under the supervision of on-site AMEC personnel, we will dismantle and load nine redwood tanks and tank bottom solids into rolloff bins for disposal. Estimated time for completion is two working days.

The dismantling, loading into rolloff bins and transportation to the recycling facility 15 steel tanks will also be performed. Estimated time for completion is seven working days.

Treaters and foundation will be dismantled, loaded into rolloff bins and transported to recycling and disposal facilities. Estimated time for completion is seven working days.

Miscellaneous steel, underground piping, and other debris at the Site will be removed to a recycling facility. Estimated time for completion is seven working days.

Total time for removal of tanks, treaters and other facility materials is estimated to be 23 working days

PROJECT PLAN
TPH/BTEX/Chloride Investigation/Excavation of Contaminated Soils

AMEC field personnel will screen soils with a PID and will begin excavation and removal of an estimated 1450 cubic yards of hydrocarbon contaminated soils from around former tank locations and soil piles according to the specifications designated in Project Approach - Section 9 and10. Contaminated soils will be transported to the CRI landfarm and clean soils will be back-hauled to the Site. When PID readings indicate clean excavation limits, soil samples will be obtained for laboratory analyses as described in Project Approach - Section 9 and 10. The excavations will be backfilled as described in Project Approach - Section 11.

Total time for soil removal and Backfilling is estimated to be 10 working days. Time waiting on soil sample analytical results is estimated to be 10 working days.

PROJECT PLAN
NORM Material Dismantling/Permitting/Disposal

At this time, the amount of NORM material at the Site cannot be estimated. When NORM material has been identified. A NORM-trained confined -space entry crew will clean and remove NORM material from inside tanks as necessary. The material will be placed in frac tanks and rolloff bins until the permits have been obtained for removal to the Lotus approved NORM Disposal facility.

PROJECT PLAN
Phase 3 Final Report

Following the removal of the final quantities of wastes from the Site, AMEC will prepare a Phase 3 report summarizing the dismantling, removal and disposition of all materials from the Site as specified in Project Approach - Section 14. The Phase 3 report will be issued 45 days following the completion of the field project at the Site.

In the event that unforeseen field conditions do not cause delays, the final Phase 3 report will be delivered to the EMNRD-OCD before 1 September 2001.

BUSINESS SPECIFICATIONS

AMEC has examined all contract documents and stipulations for the contract for the awarded project and accepts all stated terms. The following section is a summary of AMEC's qualifications, related experience, and references.

INTRODUCTION TO AMEC

AMEC is a diverse international consulting firm specializing in and environmental engineering; geologic and hydrogeologic investigations; geotechnical, materials construction quality assurance/ quality control (QA/QC); and materials testing. AMEC maintains facilities in the United States, Canada, and 50 foreign countries. In North America, AMEC's current staff of approximately 2,000 includes registered professional engineers, professional geologists and hydrogeologists, geophysicists, environmental technicians, engineering technicians, and support personnel. AMEC maintains a staff of over 70 professionals providing services directly to our New Mexico clients. These services are provided from our offices in Albuquerque, Farmington, Las Cruces and El Paso.

OIL AND GAS INDUSTRY FOCUS

AMEC has provided services to the oil and gas industries from building offshore oil platforms, construction of pipeline and natural gas compressor facilities to environmental investigation and remediation services world wide. AMEC employs a systems approach in developing solutions for oil and gas industry projects. A keystone of our service to the industry is the ability to provide an integrated team of experienced engineers and geologists capable of making a contribution during all phases of a project:

- Pre-Project Planning
- Permits and Approvals
- Project Design
- Construction
- Operations and Maintenance

AMEC has conducted numerous engineering and environmental projects throughout the western United States for federal, state and local governmental agencies; pipeline companies, engineering consultants; lending institutions; real estate developers; and legal firms. Representative projects include

- environmental inspection for construction and abandonment projects.
- design and implement leak detection procedures for underground piping systems.
- environmental assessment of roadway alignments, commercial developments, industrial complexes and vacant properties.
- site characterization studies, feasibility studies, permitting, and remedial design services.
- property condition surveys for industrial, commercial and multi-residential structures.
- compliance audits for governmental, as well as private sector clients.
- environmental risk assessment evaluations including the use of the most current computer software.

Our staff is accomplished at determining the nature and extent of subsurface contamination, the physical parameters that affect contaminant transport, and the geologic and geotechnical constraints that influence the design and success of remediation systems. We have established excellent working relationships with local State and Federal environmental regulatory agencies, and have a thorough understanding of applicable local, state and federal investigative protocols.

AMEC customizes project management to meet our client's needs. Mr. Fred Schelby, P.E. (NM Reg. No. 12726, NM Contractor No. 056124 - GS-29 and NMED Certified Scientist No. 40) will be the Principal in Charge for this contract. Mr. Bob Wilcox, C.P.G. will be Senior Project Manager for the project. George Friend will be a consulting Project Manager, Arnold Gilmore will serve as the Field Supervisor for AMEC at the Site and John Cordova will be the Field Engineer for the project.

The EMNRD-OCD will have the resources at each of our New Mexico and Corporate offices to provide the professional environmental services required for this project. Workplan preparation, project initiation, and project management will be handled by Bob Wilcox. Mr. Wilcox will be responsible for assembling and overseeing the appropriate AMEC team as well as team subcontractors. George Friend will travel to the Site and stay in contact with the Senior Project Manager, the Site Supervisor, Field Engineer and the EMNRD-OCD throughout the project.

Other experienced AMEC professionals and team members will be chosen on a case-specific basis. Priority will be to first match the needs of the project with the experience of the team members and secondly, the physical location of the team members with respect to the project site.

The following contact information is provided to EMNRD-OCD for your reference:

Albuquerque Office
Fred Schelby, P.E.
8519 Jefferson, N.E.
Albuquerque, NM 87113
Telephone 505/821-1801
Fax 505/821-7371
Mobile (505) 379-4874
fred.schelby@amec.com

Albuquerque Office
Bob Wilcox, C.P.G.
8519 Jefferson, N.E.
Albuquerque, NM 87113
Telephone 505/821-1801
Fax 505/821-7371
Mobile (505) 250-1942
bob.wilcox@amec.com

KEY RESUME SUMMARIES

Frederick T. Schelby, P.E. - Principal in Charge

Fred Schelby is a registered Profession Engineer and licensed contractor with a B.S. in Civil Engineering. In addition to his P.E., Mr. Schelby is Soil/Groundwater Remediation Contractor in New Mexico, is certified in 40-hour hazardous waste operations and emergency response as a worker and management supervisor, is certified as an asbestos inspector under AHERA, and has been trained in vadose zone transport modeling. Currently Mr. Schelby is the Unit Manager for Albuquerque engineering.

Mr. Schelby has 12 years experience in the environmental field and in materials engineering and geotechnical engineering. His extensive environmental experience includes oil and gas, field work, environmental site assessments, underground storage tank (UST) evaluations; design and installation of soil and groundwater remediation systems; hydrogeologic evaluations, environmental permitting, landfill excavation monitoring; preparation of hazardous waste sampling and site specific health and safety plans. Mr. Schelby's geotechnical expertise includes performing and directing field investigations, engineering analysis, report preparation, development of field investigations and laboratory testing programs; logging and sampling of soil deposits. His responsibilities include budgeting, forecasting, profitability, report review, quality control and assurance (QA/QC) and managing the 20 person professional staff in Albuquerque.

Bob Wilcox, C.P.G., P.G. - Senior Project Manager
Mr. Wilcox has a Master's Degree in Geology with 16 years experience in the oil and gas and the environmental restoration industry. His extensive environmental project management experience includes oversight of oil and gas industry soil remediation and facility demolition and site restoration. Mr. Wilcox's experience includes Senior Project Manager for the hydro testing of the open drain line system for El Paso Field Services Chaco Plant; demolition of gas compressor foundations and clean up of contaminated soil for BP Amoco at Empire Abo Injection Plant; and the contaminated soil clean up for El Paso Field Services at the Burton Flats Plant.

His experience includes large scale field and project management involving Phase I, II, and III environmental site assessments, landfill and leaking underground storage tank (UST) investigations. He is accomplished in proposal and budget preparation, HASP preparation, client relations, data interpretation, QA/QC review, technical report writing and editing, and supervising field personnel and subcontractors. Mr. Wilcox has extensive working knowledge of air rotary, mud rotary, wireline coring, direct-push and hollow stem auger drilling techniques. He is well-versed in soil and ground water sampling equipment and techniques and aquifer testing methods. His experience includes the design, permitting and installation soil vapor extraction, air sparging and ground water treatment/reinjection systems as well as bioremediation methods.

His certifications include Certified Professional Geologist (No.10380), American Institute of Professional Geologists (AIPG), Professional Geologist - State of Wyoming (No. 3083), and NMED Certified Scientist - New Mexico (No. 014). Mr. Wilcox has a current OSHA 40-Hour Hazardous Waste Operations & Emergency Response Manager Supervisor certificate. He has attended seminars for Mobil/Exxon Oil Environmental Consultants Workshop. Mr. Wilcox will be attending RSO and Oil and Gas NORM training during February, 2001.

George A. Friend - Consulting Project Manager
George Friend has 20 years of experience and has developed an expertise in environmental areas in the oil and gas industry. Mr. Friend is an experienced project manager, a Federal Energy Regulatory Commission (FERC) Project Inspector, and construction manager. He specializes in hazardous material assessments, health and safety risk assessments and is a Registered Environmental Property Assessor (REPA). In addition to the REPA certification, Mr. Friend is trained in NORM radiation surveying and control, in permit required confined space entry, in 40-hour hazardous waste operations and emergency response as a worker and management supervisor, in emergency response to hazardous materials incidents and as a first responder incident commander, and asbestos work under NESHAP and as a contractor/supervisor for asbestos control.

Mr. Friend's project experience includes providing services as the Environmental Inspector and Project Manager for Enron's FERC gas treatment plant abandonment project involving the isolation and complete demolition of 10 obsolete gas treatment plants and compressor sites. Environmental concerns included asbestos, contaminated soils, threatened and endangered species and contaminated groundwater. All sites were remediated, revegetated and returned to land owners. As an Environmental Inspector, Mr. Friend was responsible for conducting FERC environmental training for all on-site contractors, monitoring site activities for compliance with applicable regulations, conferring with federal, state and local regulatory agencies, and implementing corrective actions as appropriate. As Project Manager, he planned, directed, and coordinated the activities of contractors, maintained project records, and produced reports for FERC.

Arnold E. Gilmore - Field Supervisor
Arnold Gilmore has 47 years of experience in the oil and gas industry and has developed an expertise the gas transmission industry as superintendent of field services and construction, superintendent of inspection, and chief inspector of gas compressor

stations, pipelines and offshore platforms. He has experience with NORM materials during his career at El Paso Field Services

Mr. Gilmore's experience includes supervision of the hydro testing of the open drain line system for El Paso Field Services Chaco Plant; supervision of the demolition of gas compressor foundations and clean up of contaminated soil for BP Amoco at Empire Abo Injection Plant; supervision of the contaminated soil clean up for El Paso Field Services at Burton Flats Plan; supervision of a pipe yard with responsibility for inventory control, shipping, logistics, and equipment maintenance in a yard that carried an average of over 14 million feet of drill pipe, line pipe, and casing; over trucking as a support group for drilling activities; and supervision for structural maintenance of a compressor station and associated building complexes.

Mr. Gilmore is also an experienced inspector and has served as Superintendent of Inspection, responsible for the allocation and placement of over 40 inspectors of various disciplines to compressor station construction, pipelines and maintenance. Mr Gilmore also served as the Chief Inspector on the Northern Border (Enron) Chicago Pipeline Project installing 17,000 horsepower electric drive gas compressor stations from ground breaking through commissioning and start up. Duties encompassed safety training, project environmental compliance, and the quality of the full scope of works of all contractors on site. In addition to these projects, Mr. Gilmore served as the Chief Inspector during the installation of gas coolers for El Paso Natural Gas at their Bondad Compressor station; served as Chief Inspector during the installation of a 16" pipeline for El Paso Natural Gas to supply fuel gas for Arizona Public Service power plant in Tucson, Arizona; and served as Chief Inspector on a series of compressor station constructions and retrofits from 15,000 horsepower turbine powered systems to skid mounted units. Mr. Gilmore will be attending RSO and Oil and Gas NORM training during February, 2001

John David Cordova, P.E., Field Engineer
John Cordova is a registered Professional Engineer and Certified Hazardous Materials Manager with a B.S. in Industrial Engineering and additional training in wastewater engineering and business administration. Mr. Cordova carries additional certifications or licenses as a Health Asbestos Individual Consultant and Lead Risk Assessor, as LPST Corrective Action Project Manager, licensed Underground Storage Tank On-Site Supervisor "B". Mr. Cordova has also received the 40-hour hazardous waste site worker emergency response training and is Hazcat™ Chemical Identification trained and certified. Mr. Cordova has 12 years experience in hazardous waste remediation projects for various local, state, and federal agencies in Texas and New Mexico.

Mr. Cordova was also responsible for the management of the decontamination and remediation of a 10,000 square foot manufacturing area that had sustained impacts from 2,4 -Toluene Diisocyanate (TDI). Mr. Cordova designed the engineering controls used to safely enter the work area and prevent off-site exposures from the listed extremely hazardous substance. He oversaw and monitored a work crew of six hazardous material technicians and was responsible for writing the daily work task sheets for the haz-mat technicians as well as summarizing daily work accomplishments to the facility representatives.

Mr. Cordova managed all waste disposal shipments for this project which included proper manifesting and waste segregation.

In addition to his remediation and underground storage tank work, Mr. Cordova has participated in and completed numerous commercial, and industrial site assessments; asbestos surveys, asbestos management plans and asbestos project designs for various clients to meet local, state, and federal asbestos requirements as they pertain to renovations, and planned demolitions; and lead-based paint inspections and lead-based paint hazard screens. Mr. Cordova has received safety and radiation training in the proper use of instrumentation and sampling procedures. Mr. Cordova has also completed various industrial wastewater permitting projects for several industrial facilities, including the preparation of industrial wastewater discharge permit applications.

Mr. Cordova will be attending the RSO and Oil/Gas NORM training during February, 2001.

PAST RECORD OF PERFORMANCE

AMEC's New Mexico offices have completed more than 500 environmental projects in New Mexico that have required a variety of investigations and design-related services. We have performed Initial Site Assessments (ISA), Preliminary and Detailed Site Investigations (PSI, DSI) directly for the New Mexico State Highway and Transportation Department and on state roadway projects through a number of design firms. AMEC also has experience with property condition assessments, asbestos, radon and lead-based paint surveys, hydrogeologic investigations, feasibility studies, remedial investigations, and design, installation and monitoring for soil and groundwater remediation.

Our experience in oil and gas projects of similar scope and budgets is summarized on the following pages.

Closure of Lean Oil Plant
Eddy County, New Mexico
El Paso Energy
Completion Date: Summer 2000
Cost Range $ 185,000.00

Key AMEC Personnel:
George Friend
Bob Wilcox
Arnold Gilmore
Fred Schelby

AMEC provided complete closure services for this lean oil facility in Eddy County, New Mexico at the request of our client in 38 continuos working days. The facility contained over 2990 cubic yards of non-exempt, hydrocarbon contaminated soil excavated from along side and beneath the facilities structures, 630 gallons of exempt Amine water and sludge removed and sent for disposal, and the removal of 550 gallons of oily water and 510 gallons of antifreeze sent to the recyclers.

Our services provided to our client included initial scoping and costing of the project, preparation of the health and safety plan, selection of qualified a subcontractor, conducting daily on-site safety meetings, providing on-site compliance monitoring, supplying on-site field supervision of the contractor, maintaining records for the project including health and safety, load tickets, hours works and final reporting of all on-site activities.

Abo Empire Injection Plant Abandonment and Environmental Remediation Services
Eddy County, New Mexico
BP Permian
Completion Date: Summer 2000
Cost Range: $ 120,000.00
Key AMEC Personnel:
George Friend
Arnold Gilmore
Bob Wilcox
Fred Schelby

AMEC provided closure and environmental remediation services at an injection plant located in Eddy County, New Mexico at the request of our client. Work at the site started in September, 2000 and continued for 30 days. All site work was performed in accordance with AMEC's Health and Safety guidelines.

Contaminated soils and sludge at the site were sampled and characterized for disposal. Analysis consisted of Volatile Organic, Semi Volatile Organic, Reactivity, Corrosive, and Ignitability and Total Petroleum Hydrocarbons. During the removal of the cement sump and lines leading to the slop oil tank a larger than expected area of contaminated soil was located in the area of the sump. The client was notified and a letter of authorization to remove additional soil was issued to AMEC. Excavation continued until the soil appeared visually to be clean.

A total of 660 cubic yards of contaminated soil, described as non-exempt hydrocarbon contaminated soil was removed and sent for disposal.

The cement walls, piers and blocks were demolished and spread in the area of the old compressor cellar. The site, including the surveyed excavation areas, was then backfilled with over 1000 cubic yards of caliche and contoured to conform to the adjacent area. A 3 to 4 inch cover of rock was then spread over the area to minimize erosion.

Gas Cooler Installation Projects
Northwestern New Mexico and Southwestern Colorado
Confidential Client
Completion Date: Spring 2000
Cost Range: $ 25,000.00

Key AMEC Personnel:
George Friend
Fred Schelby

AMEC provided our client with a FERC-trained inspector to monitor the installation of gas coolers at two sites located in New Mexico and Colorado, respectively. Our responsibilities included monitoring contractor performance with respect to potential discharges of contaminants either from construction equipment, or from construction of the new gas coolers. In addition, it was AMEC responsibility health and safety procedures at the site and conducted daily meeting.

Drain Line Testing
Artesia, New Mexico
Elkhorn Operating
Completion Date: Summer 2000
Cost Range: $ 38,000.00

Key AMEC Personnel:
George Friend
Arnold Gilmore
Bob Wilcox
Fred Schelby

AMEC was responsible for conducting hydrostatic testing for the below ground, non-pressured, process and wastewater drain line system at a gas plant located near Artesia, New Mexico for our client. The underground pipelines carrying process or wastewater were isolated and filled with clean water and air removed. A water-filled riser was of sufficient height to provide a minimum of 3 pounds per square inch above normal operating pressure.

Over 5800 feet of 2, 3 and 4- inch, steel piping were tested in the above referenced manner. Several leaks were discovered both in the underground piping and at several aboveground valves. Each leak was found and repaired.

Phase I Evaluation
Former Petro-Thermo Corporation
Goodwin Treating Plant Facility
New Mexico Oil Conservation Division
Lea County, New Mexico
Completion Date: Fall 2000

Key AMEC Personnel:
George Friend
Buddy Butler
Fred Schelby

AMEC provided the EMNRD-OCD with Phase I evaluation services at the Goodwin Treating Plant located in Lea County, New Mexico. Site work took 2 working days and was performed in accordance with AMEC health and safety guidelines.

Tanks, sludge, liquids and piping at the referenced facility were surveyed for the presence of natural occurring radioactive material (NORM). Readings of over 50 uR/hr prompted the EMNRD-OCD to require AMEC to collect laboratory samples. These samples were collected by a trained NORM inspector (now certified in New Mexico) and submitted for analysis. Analytical testing for radium 226, radium 228 and lead 210 were performed.

Samples from suspect asbestos materials were also collected and submitted for determination of asbestos content.

Drain Line Testing
Chaco Gas Plant
San Juan County, New Mexico
El Paso Field Services
Completion Date: Winter 2001
Cost Range $ 80,000.00

Key AMEC Personnel:
George Friend
Arnold Gilmore
Bob Wilcox
Fred Schelby

AMEC was responsible for conducting hydrostatic testing for the below ground, non-pressured, process and wastewater drain line system at a a large natural gas plant located near Bloomfield, New Mexico for our client. The underground pipelines carrying process or wastewater were isolated and filled with clean water and air removed. A water-filled riser was of sufficient height to provide a minimum of 3 pounds per square inch above normal operating pressure.

Over 8,700 feet of 2, 3 and 4- inch, steel and PVC piping were tested in the above referenced manor. Several leaks were discovered in the underground piping. Each leak was found and repaired.

Emergency Response
Gas Line Rupture
Carlsbad, New Mexico
El Paso Natural Gas
Completion Date: Fall 2000
Cost Range $ confidential

Key AMEC Personnel:
George Friend
John Cordova

AMEC personnel served in the capacity as project manager associated with a pipeline emergency rupture in Carlsbad, New Mexico. As part of our responsibilities, we acquired pertinent emergency oil spill response supplies and mobilized on site. While on site, AMEC representatives received client project information and planned a contingency to contain oil that could potentially be released and impact soil and surface water during hydrostatic testing of a repaired line. AMEC project managers and emergency response technicians set up floating oil booms across the Pecos river as well as shoreline absorbents.

AMEC personnel were on-site throughout the hydrostatic test to monitor for any oil release and to maintain the spill response equipment throughout the critical hydrostatic testing junctures.

WORK APPROACH

This section describes project management, the performance of various tasks anticipated under this contract and reporting.

PROJECT MANAGEMENT

To accomplish the EMNRD-OCD project schedule, the following approach is proposed:

- Project and task assignments will be assigned directly by AMEC's Project Manager.
- AMEC's Project Manager will adhere to the work plan and budget until.
- AMEC's Project Manager will monitor and enforce schedules and ensure that the appropriate resources are available for the projects so that reporting schedules are met.
- On a routine basis, Fred Schelby and Bob Wilcox will review and audit reports for technical completeness and will contact the EMNRD-OCD representative and discuss AMEC's performance.
- Any corrective actions required either from a technical or management perspective will be directed to the Project Manager.
- The Project Manager will review all work in progress and prepare and submit a monthly invoice. These invoices will be as specific as requested by

EMNRD-OCD. Additional information pertaining to AMEC's accounting system is provided below.

QUALITY ASSURANCE/QUALITY CONTROL

The primary goal of the Quality Assurance (QA) program is to develop, through the use of Data Quality Objectives (DQO) a series of metrics that, if met, ensure that the data collected is accurate, reproducible, and defensible. Considering the nature of the engineering and scientific services provided by AMEC, this QA program focuses on the acquisition of quality field and laboratory data on the physical and chemical properties of earthen materials, water quality and related environmental and geotechnical properties. AMEC's QA program is restricted to establishing basic guidance to project management, with project-specific QC procedures used to delineate technical protocols and actions. It is the responsibility of project staff to assure conformance to federal or state government QA guidelines or specifications.

Quality Control (QC)

Activities affecting quality shall be performed in accordance with documented and approved procedures. These activities may be performed in the field, laboratory, or office by AMEC or, where appropriate, by a sub-contractor to AMEC.

AMEC procedures shall provide guidance for:

- Preparation, review, approval, and change of procedures
- Procurement control (including subcontractor/vendor pre-qualification)
- Personnel control (including subcontractor/vendor pre-qualification)
- Personnel qualifications
- Equipment calibration
- Field investigation monitoring and testing
- Laboratory testing
- Coordination with subcontractors
- Reduction and evaluation of data
- Preparation of calculations
- Verification of data reduction and calculations
- Documentation and verification of computer programs
- Preparation and verification of reports
- Auditing by the QAD and/or designated representatives
- Record control and retention

This system allows for documented and approved procedures designed on a project-specific basis. AMEC strives to work with firms which maintain QA/QC programs similar to or more comprehensive than ours.

Review and Approval of Procedures

QC procedures shall generally be prepared in advance of the work they are to control. Procedures for project work performed by AMEC may be originated by the Project Team, or QA committee. Procedures to control quality assurance activities shall be prepared by the QA Director (QAD). Mr. Fred Schelby will be the QAD for this contract.

To develop a new project-oriented procedure (generic or project-specific), the QAD will be contacted to discuss the intent and scope of the work. Whenever possible widely accepted methods, such as those published by the ASTM, the EPA, or the FHWA shall be used. Based on this discussion, responsibility for preparation of the procedure will be defined. Preparation shall assure that applicable design minimums, regulatory requirements, and AMEC standards are correctly translated into the procedure. Procedure content shall include the following, as appropriate:

- Objectives
- Scope
- Schedule
- Method

- Required equipment
- Calibration requirements
- Required materials
- Personnel qualification
- Data recording form/format
- Data processing requirements
- Accept/reject criteria
- Performance frequency
- Required analysis
- Documentation and reporting requirements

Preparation, review, and approval of revisions to procedures shall be performed in accordance with established policy. Once a draft of any procedure has been prepared, a technical review shall be performed by the QAD for conformance with AMEC quality assurance requirements. Technical reviews assure that the procedure is compatible with work objectives, that the method selected is appropriate and completely documented or referenced, and that sufficient detail is provided so personnel familiar with the subject can execute the work.

Final approval of all procedures will be indicated by a signed approval sheet attached to the procedure. Generic procedures, including those used to control quality assurance activities shall be approved by the QAD.

Following approval, procedures shall be issued by the group responsible for their preparation. It is the responsibility of the issuing group to assure that proper current procedures are available and used at locations where the prescribed work is performed.

MISCELLANEOUS

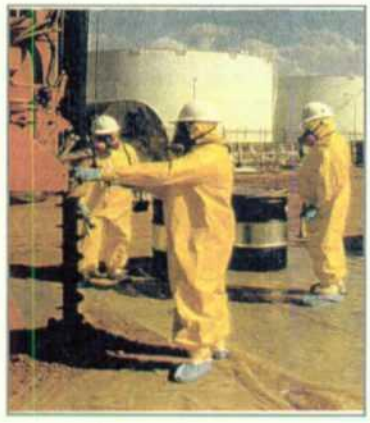
Computer Capabilities

The computer capabilities present in the AMEC Albuquerque office range from e-mail, AutoCAD Release 14 to Microsoft Excel. Other programs in use include Power Point, Access, Microsoft Word, Corel Presentations, Corel Draw, and Corel WordPerfect. These programs provide a professional, clean, and clear presentation and are enhanced by the use of equipment such as plotters, color printers, digitizers, scanners, digital cameras and hand held GPS. The AMEC Albuquerque office has the equipment as well as the computer capabilities to produce a polished and accurate finished product.

Expert Witness Testimony

If requested by the Department, the AMEC team may provide expert testimony, regarding contamination, leaking underground storage tanks and/or hazardous substance/waste sites, as well as any other activities related to remediation of the specific sites in which project work was performed. AMEC will assist the EMNRD-OCD legal department as requested by the department.

HEALTH & SAFETY PROGRAM



AMEC's health and safety program was developed in conjunction with certified industrial hygiene consultation, and is periodically updated to comply with OSHA and US EPA recommended standards. The document fully addresses all of the health and safety requirements identified in the RFP and will be made available to EMNRD-OCD upon request. A description of our health and safety program is presented in this section.

Health and Safety Policies and Responsibilities

AMEC's expressed philosophy is that there is no concern of greater importance than the health and

safety of our employees, clients and the public affected by our activities. AMEC management responds without retribution to any and all health and safety concerns expressed by an employee, subcontractor, client or the public.

Key Personnel and Health and Safety Responsibilities

Our health and safety program is administered by the Health and Safety Director, Debra Keyes, CIH. Ms. Keyes is located in AMEC's Phoenix, Arizona office and can be contacted at (602) 272-6848. Ms. Laura Abeita is the Health and Safety Coordinator for AMEC's Albuquerque Operations. In this capacity, she will be responsible for coordination and development of project- specific health and safety plans as they relate to our employees, our subcontractors, the EMNRD-OCD and the public affected by our activities.

Employee Responsibilities

Each employee has the right and responsibility to act and rectify any situation that appears to present a health or safety hazard.

Personal Protective Equipment Capabilities

AMEC field personnel who may be exposed to contaminants in the field are trained in compliance with 29 CFR 1910.120 (e) requirements, and are respirator fit-tested and medically monitored. If conditions at a particular site require supplied air or fully encapsulated suits (level B or A), AMEC has specially trained personnel available.

Standard Work Practices and Training Programs

Experienced, well-trained people are always present at our work sites to ensure that hazards at petroleum release, tank release and hazardous materials sites are recognized. All AMEC personnel who perform contaminant related work undergo, at a minimum, 40-hour OSHA hazardous materials training. Our staff who supervise field activities also receive 8-hour OSHA Managers/Supervisors training. AMEC strives to maintain a constant awareness of safety and a high degree of awareness of potential work hazards to our employees.

Training procedures for emergency response include general training in hazardous material recognition and response included in 40-hour OSHA training, and site specific health and safety plans which are developed for each work site. Emergency action plans are developed as part of site health and safety plans which address specific site concerns, emergency response facilities, and the client's health and safety plans. Unexpected encounters with suspected hazardous situations will initiate a response considered appropriate, the lowest level of which is suspension of work for evaluation by qualified personnel and the highest level of response would be the initiation of the emergency action plan, established on a site specific basis prior to the initiation of site activities.

Medical and Exposure Monitoring

AMEC personnel are medically monitored on an annual basis, with additional monitoring if exposures are experienced that require additional testing. Exposure monitoring includes air sampling with ionization detectors and combustible gas instruments, and laboratory analyses of contaminated materials.

AMEC staff who supervise field activities also receive 8-hour OSHA Manager/Supervisor training.

Reporting and Record Keeping Procedures

All injuries, accidents and environmentally related occurrences are reported within 24 hours to the site supervisor, who documents the situation and forwards a report to the Health and Safety Director. Forms and reporting procedures include an injury/illness log, accident reports, notice of loss time injury and return-to-work authorization.

REFERENCES

AMEC has provided environmental services for similar projects for a number of clients in the recent past.

Corporate references are listed below:

Mr. David Bays
El Paso Field Services
(505) 599-2256

Mr. Pete Hibler
Arguijo Oil Field Services
(915) 586-5650

Ms. Margaret Lowe
BP Permian
(915) 688-5799

Personal References:

Reference for Fred Schelby:
Mike Malloy
Gannett Fleming West
(505) 265-8468

References for Bob Wilcox:

Mr. Richard Heibel
NMSHTD
(505) 827-5699

Mr. Stuart Faith
Faith Engineering
(505) 243-5494

References for George Friend:

Mr. Bob Weeks
NMED DOE Oversight Bureau
(505) 827-1536

Mr. David Bays
El Paso Field Services
(505) 599-2256

References for Arnold Gilmore:

Mr. David Kelsey
El Paso Natural Gas
(915) 496-3008

Mr. Mike Hansen
El Paso Field Services
(505) 546-4070

References for John Cordova:

Mr. Mehary Bhata
E&A Technology, Inc.
(915) 592-6988 ext 2150

Mr. Rick Venegas
City of El Paso - Public Works Department
(915) 541-4277

SUBCONTRACTORS

AMEC will be the prime contractor for the project and will supervise all subcontractor work at the Site.

The pool of AMEC subcontractors will include:

- Eades Drilling/Soil Sampling/Monitor Well Installation:
- NORM/RSO Services: SES/Lotus
- Demolition Services: Control Recovery/Banta Field Services
- Hauling and Landfarming: Control Recovery and Lotus
- NORM Disposal: Lotus
- Analytical Services: Hall Environmental Laboratory, Pinnacle Environmental Laboratory, Trace Analysis AMEC also holds a full service environmental laboratory in Portland, Oregon. All labs adhere to EPA SW-846.

Details regarding several of the subcontractors are provided below. Permits, Certifications and other important information for these subcontractors is presented in Appendix C.

Controlled Recovery, Inc. (CRI)

CRI is a New Mexico Corporation that has been serving West Texas and southern New Mexico for 10 years. The firm is a licensed general contractor (Permit #GB98-13641) specializing in the remediation of storage tank contaminated soils and liquids, disposal of materials defined as RCRA (Resource Conservation Recovery Act) exempt, and reclamation and/or recycling of oil. CRI services include coordination of regulatory approvals from the appropriate governmental agencies for soil remediation and disposal, preparation of transportation manifests, preparation of agency-required forms, and assistance with the hiring and management of any subcontractors required to successfully complete any remediation or disposal project to include site assessment, testing and analysis, excavation, transportation, and disposal. To facilitate the disposal of oil field wastes, CRI operates a facility permitted for treating oil and for surface waste disposal (land farming) of oilfield wastes.

CRI references include:

Mr. Brad Firecoat
Plains Marketing
(915) 686-1722

Lotus, LLC (Lotus)

Lotus is a Limited Liability Corporation with 27 years experience serving the oil and gas industry. Lotus primarily provides services relating to naturally occurring radioactive materials (NORM) which found in conjunction with oil field operations. Lotus services include NORM processing and disposal; site assessments and surveys; on-site decontamination; regulatory consulting; health physics; air, soil, water, scale, and sludge sampling; Radiation Safety Officer services, export permitting from Rocky Mountain Compact States; tubular decontamination; vessel decontamination; hazardous waste transportation; hazardous and mixed-waste disposal; and roll-off container rental. Mr. Jeff Hudson, Regulatory Affairs Manger and Corporate Radiation Safety Officer, may serve as Radiation Safety Officer for the proposed project. Mr. Hudson hast 14 years experience in the mining industry and 20 years experience in oil and gas. He is a certified NORM Radiation Safety Officer. Mr. Hudson recently received his RSO and NORM certification from the NMED-RSP (personal communication with Stan Fitch, 827-1862)
Lotus clientele include:

Exxon Company, USA
Contact: Mr. Tim Reep (915) 758-5526

Phillips Pipeline Company
Contact: Mr. Scott Maddox (918) 667-6600

Safety & Environmental Solutions, Inc. (SES)

SES is an environmental services firm with over 15 years of experience in naturally occurring radioactive materials (NORM) management, hazardous materia/hazardous waste management, waste minimization program development, site investigations, environmental assessments and audits, environmental consulting and remediation services, soil characterization and water sampling, environmental property assessments, inspection and procedural services, safety equipment services, regulatory compliance investigations and planning, specialty services, and training programs in many of the listed service areas including NORM training. Bob Allen or Dee Whatley may serve as Radiation Safety Officers for the proposed project. Mr. Allen has 15 years of experience relating to occupational safety and health, hazardous materials, and environmental clean up. He is a licensed radiation safety consultant and NORM instructor. Ms. Whatley has 12 years of experience in safety supervision in natural gas plants and refineries, oil and natural gas well drilling and production during hazardous situations. She is a New Mexico Radiation Safety Consultant for NORM.

SESI clientele include:

Occidental Permian, Ltd.
Contact: Tom Scott (915) 685-5677

Navajo Refining Company
Contact: Darrell Moore (505) 748-3311

Chevron, USA
Contact: Rick Massey (505) 394-3133

City of Hobbs, New Mexico
Contact: David Hooten (505) 393-2870

AMEC PROFESSIONAL LIABILITY INSURANCE

AMEC maintained errors and omissions insurance with Reliance Insurance Company from 1989 to 1998. No successful claims were made on the errors and omissions when the policy was in effect.

AMEC currently maintains errors and omissions insurance with Commerce & Industry Company since 1998. No successful claims have been made on the errors and omissions policy since the policy has been in effect. The policy is in effect until July 31, 2001 and will be renewed before expiration. Policy information is as follows:

Carrier:	Commerce & Industry Company
Policy Number:	COPS7619668
Coverage Limit:	$500,000.00

AMEC CORPORATE ACCOUNTING SYSTEM

AMEC uses BST software for our project management/accounting system. Our fiscal year is January 1st through December 31st. BST is a fully integrated project management and accounting system. With BST, AMEC has the flexibility to accumulate costs and invoice projects for a variety of project "types" such as time and materials; cost plus fixed fee; time and materials not to exceed; and a lump sum basis. Our invoice presentation is also flexible. AMEC is able to meet the invoicing requirements of our clients.

BUDGET
Total Turnkey Costs & Supplemental Rates

Turnkey costs and supplemental rates can be found in Appendix B.

AMEC'S ADDITIONAL TERMS AND CONDITIONS

We have based our scope of services on information AMEC obtained during our initial investigation and data provided by the EMNRD-OCD in the RFP. Unforseen field conditions may cause the scope of services to change and therefore and increase in cost may result. AMEC will inform the EMNRD-OCD Project Manager immediately if and when this information becomes known. The primary unknown with this project is the amount of NORM material present and the cost for investigation, removal, permitting, transportation and disposal for these materials.

AMEC did not provide costs for a specific number of NORM samples for laboratory analysis due to the actual quantity is unknown at this time. Since the EMNRD-OCD was specific with other sample requirements, AMEC did not assume quantities of NORM samples. We have provided a unit rate for NORM samples in Appendix B.

ADDITIONAL SUPPORTING MATERIAL

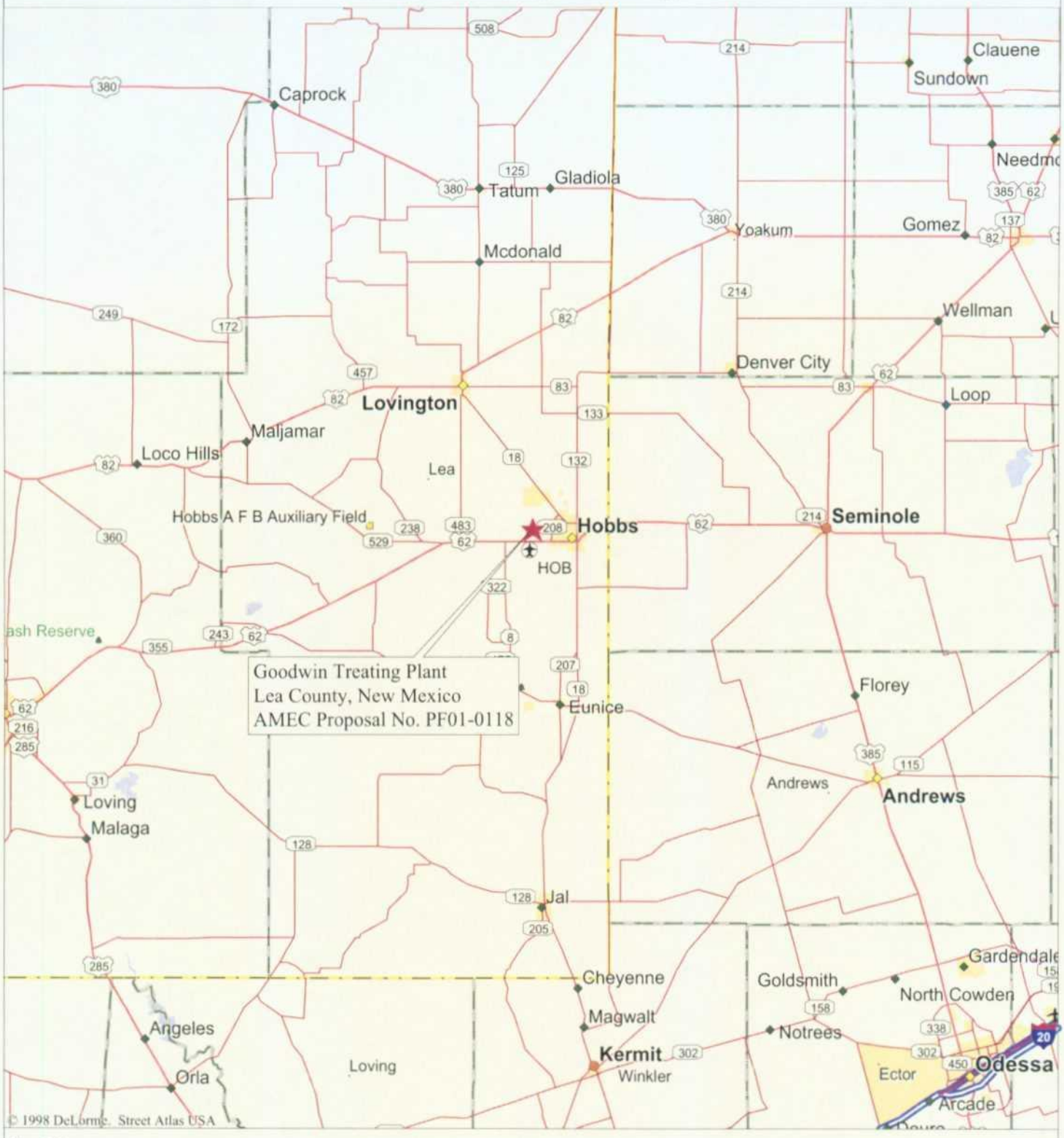
AMEC has provided permits, certifications and other documentation for this proposal in Appendix C.

APPENDIX A

APPENDIX A

Figures

Vicinity Map



Mag 9.00
Wed Jan 31 08:22 2001
Scale 1:1,000,000 (at center)
20 Miles
20 KM

- Major Road
- Major Highway
- Interstate/Limited Access
- Interstate/Unlimited Access
- Point of Interest
- County Seat
- Large City
- Park/Reservation
- City
- Sched Service Airport
- Public Airport
- Small Town

amec

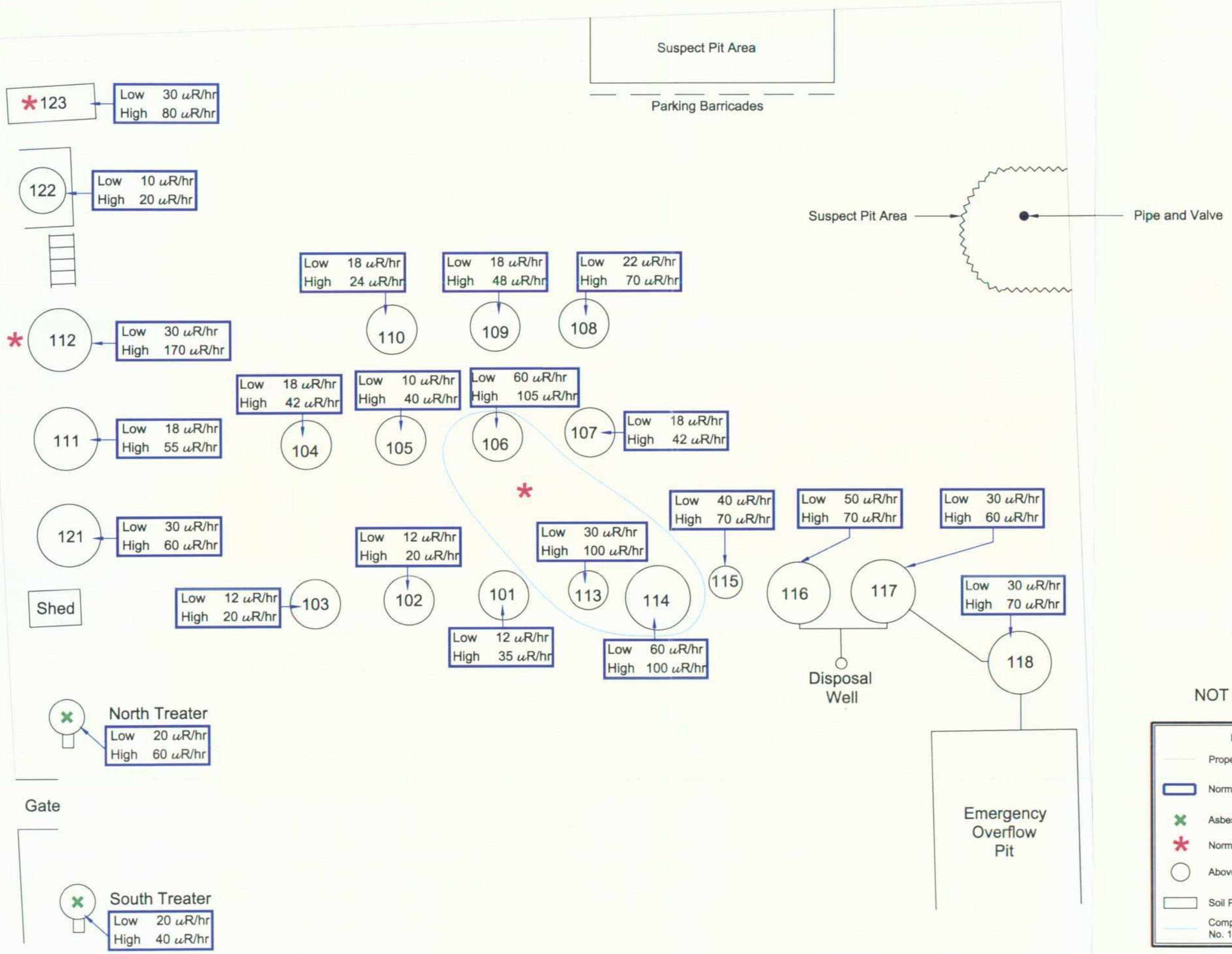


FIGURE 2

DATE DRAWN: 31 Jan. 2001
DRAWN BY: RJT
CHECKED BY: BW

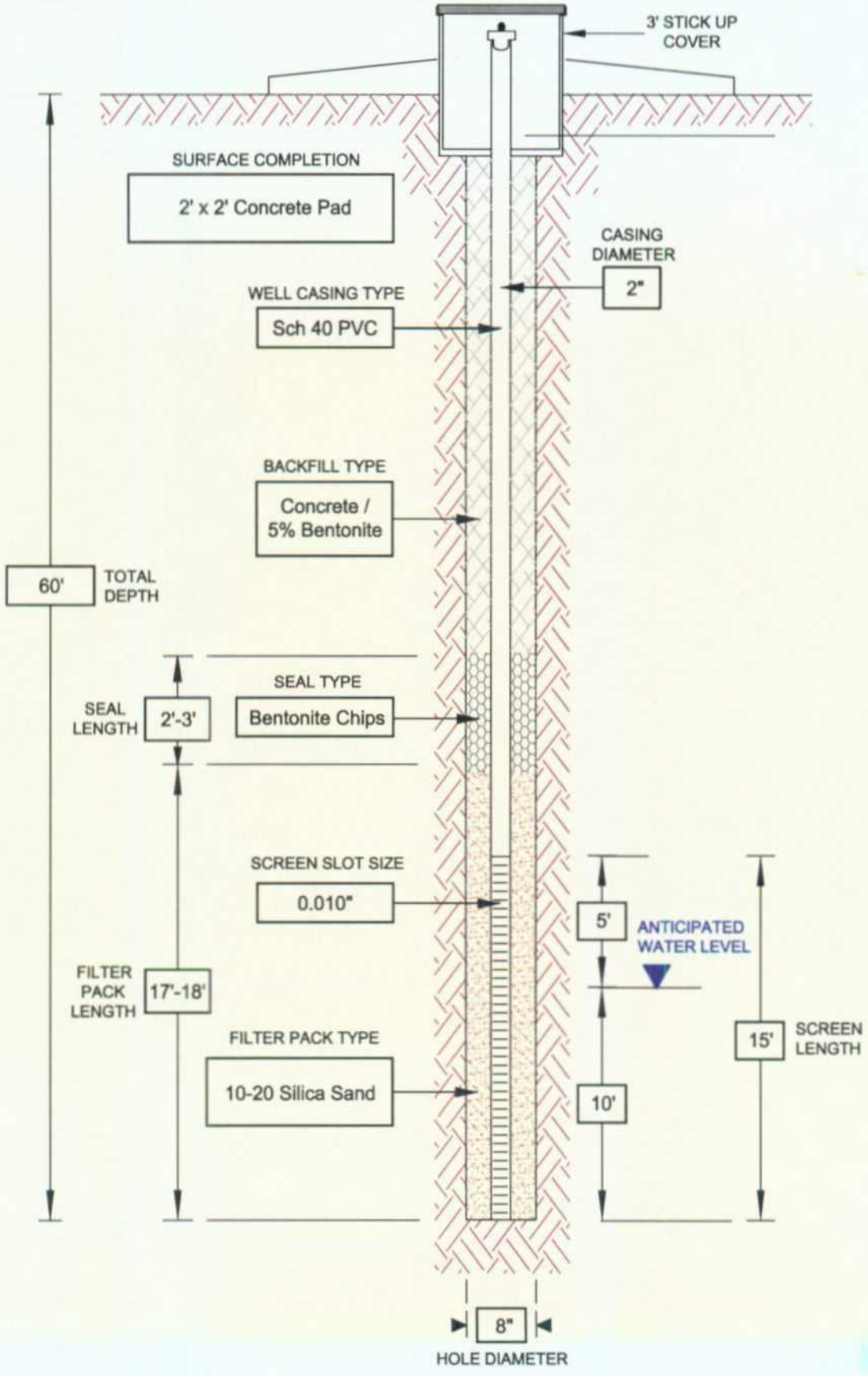
SHEET TITLE
Site Plan

amec
8519 Jefferson, NE
Albuquerque, New Mexico 87113

Goodwin Treating Plant
Lea County, New Mexico
AMEC Proposal No. PF01-0118

PROPOSED WELL COMPLETION LOG

WELL NUMBER: MW-1 DRILLER: Eades Drilling DRILL METHOD: Air Rotary



Goodwin Treatment Facility Lea County, New Mexico AMEC Proposal No. PF01-0118	amec 8519 Jefferson NE Albuquerque, New Mexico 87113	**Schematic of Proposed Monitor Well**	Figure No. 3
		Date Drawn: 30 January 2001	Drawn By: RJT Checked By: BW

APPENDIX B

Turnkey Cost and Supplemental Rates

BUDGET

A turnkey cost, as shown below, will be included in each proposal (refer to Section V):

TECHNICAL SPECIFICATION - Turnkey Cost	**ITEM COST**
• Subsurface contamination investigation based on air rotary	$ 2,695.00
• Well completion based on 60 foot well	$ 3,462.50
• Groundwater sampling and analysis	$ 1,095.00
• NORM requirements	$ 6,105.00
• NORM survey	$ 13,250.00
• Tank fluid removal and disposal	$ 12,072.50
• Tank solids removal and disposal	$ 17,202.50
• Tank and equipment removal	$ 55,480.00
• Near surface contamination investigation based on lab 35 samples	$ 9,205.00
• Contaminated soil removal based on 1450 C.D.	$ 58,435.00
• Backfilling excavations with back-hauled clean soil	$ 15,295.00
• Phase 1 report	$ 2,890.00
• Phase 2 report	$ 7,440.00
• Phase 3 report	$ 11,397.00
Total	$216,024.50
NM Gross Receipts Tax	$ 12,556.42
TOTAL TURNKEY COST	**$228,580.92**

SUPPLEMENTAL RATE

DESCRIPTION OF SERVICE	**RATE PER**	**UNIT**
Air rotary rig equipped to perform all work Set out in technical specifications	$ 275.00	hour
Bentonite pellets	$ 00.60	pound
Blank 2-inch PVC riser	$ 1.55	foot
Move-in, move-out charges	$ no charge	hour
Water truck-capacity 110 bbl	$ 61.00	hour
Medium Backhoe - minimum hours 6	$ 50.00	hour
Medium Trackhoe - minimum hours 6	$ 125.00	hour
Dozer - minimum hours if applicable 6	$ 95.00	hour
Trucking - minimum hours if applicable _____	$ 70.00	hour
Medium Front end loader - minimum hours 6	$ 70.00	hour
Senior scientist	$ 85.00	hour

Environmental technician	$ 40.00	hour
Certified NORM technician/scientist	$ 100.00	hour
Labor	$ 25.00	hour
Photo Ionization Detector (PID)	$ 1.00	hour
Chloride laboratory analysis	$ 10.00	per analysis
TPH laboratory analysis	$ 35.00	per analysis
BTEX laboratory analysis	$ 35.00	per analysis
Contaminated soil offsite landfarm remediation	$ 15.50	per cubic yard
Back-haul clean soil and infill	$ 7.50	per cubic yard
NORM contaminated soil offsite disposal include trucking cost	$ 220.00	per cubic yard
Produced water and non-NORM liquids disposal	$ 2.00	per barrel
NORM Fluid/Solids/Tank/Equipment Removal Labor and Equipment Charges	$ 2,650.00	per day

Filing Application Fee to export NORM waste	Volume	Fee
	0-999 cu. ft	$200 or $2.00 cu. ft
	1,000-9,999 cu. ft	$1,000 + $1.00 cu. ft.
	10,000-99,999 cu. ft	$6,000 + $0.50 cu. ft.
	>100,000- cu. ft	$46,000 + $00.10 cf
	Maximum fee not to exceed	$100,000

APPENDIX C

APPENDIX C

Additional Supporting Material

THE REPRODUCTION OF

THE

FOLLOWING

DOCUMENT (S)

CANNOT BE IMPROVED

DUE TO

THE CONDITION OF

THE ORIGINAL

Statement of Qualifications

CRI

CONTROLLED RECOVERY INC.

CRI

CONTROLLED RECOVERY INC.

Contents

P.O. Box 369 • Hobbs, New Mexico 88241 • (800) 658-6914 • (505) 393-1079 • Fax (505) 393-3615

CRI

CONTROLLED RECOVERY INC.

Introduction

Controlled Recovery, Inc. a New Mexico Corporation, has been serving West Texas and Southern New Mexico since 1991. CRI was formed for the purpose of providing the following services:

1. Remediation of Storage Tank Contaminated Soils and Liquids
2. Disposal of Materials Defined as RCRA Exempt
3. Reclamation /Recylcing of Sediment Oil

CRI HAS BEEN SERVING THE SOIL REMEDIATION AND DISPOSAL/RECYCLING NEEDS OF BUSINESS, GOVERNMENT AND INDUSTRY SINCE 1991.

CRI's officers and employees are available to assist it's customers as listed:

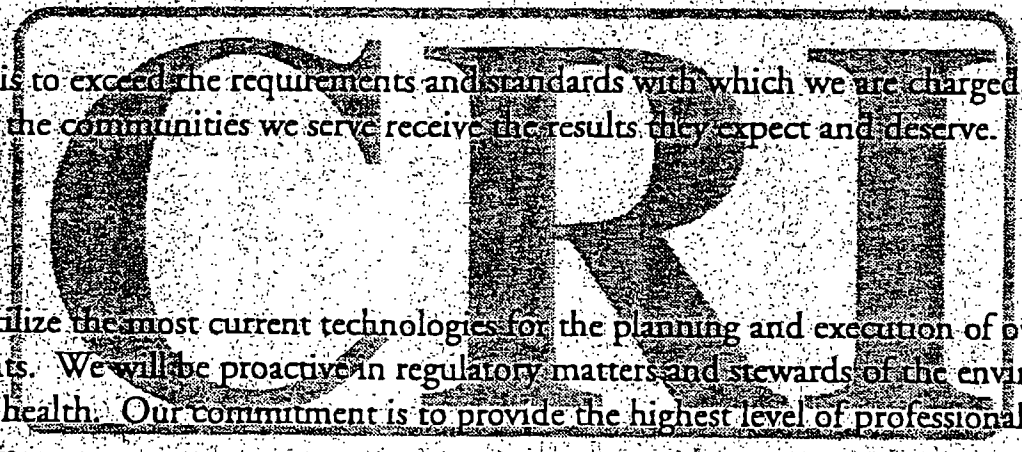
1. Coordinating regulatory approvals from the appropriate governmental agency for soil remediation and disposal. CRI regularly consults with:
   A. State of Texas, Texas Natural Resource Conservation Commission (TNRCC)
   B. State of Texas, Railroad Commission (RRC)
   C. State of New Mexico, Environmental Department (ED)
   D. State of New Mexico, Oil Conservation Division (OCD)
2. Assist with proper preparation of transportation manifest.
3. Assist with all required forms that may be required from various regulatory agencies.
4. Assist with the hiring and management of any subcontractors required to successfully complete any remediation or disposal project, e.g., site assessment, testing and analysis, excavation, transportation, and disposal.

Controlled Recovery, Inc. has managed many environmental projects in West Texas and New Mexico at the customers request. CRI is a licensed general contractor in New Mexico operating under permit #GB98-13641. The State of Texas does not require a specific license to perform general contractor's services.

All subcontractors utilized at the job site are required to have all appropriate certifications and training as each project demands to satisfy all safety and health requirements.

General Information and Confidentiality Statement

Mission



CRI's goal is to exceed the requirements and standards with which we are charged, that our clients and the communities we serve receive the results they expect and deserve.

Policy

CRI will utilize the most current technologies for the planning and execution of our job requirements. We will be proactive in regulatory matters and stewards of the environment and public health. Our commitment is to provide the highest level of professional service in the industry.

Confidentiality

Confidentiality is paramount as a corporate policy for CRI. The CRI philosophy is to conduct its activities in accordance with compliance with all rules, regulations and laws with the highest ethical standards. Any use of a sub-contractor by CRI is made on that companies/industries ability to provide quality services or materials for a project at the most reasonable price.

Information of a confidential or proprietary nature divulged by clients is held confidential by CRI unless and until disclosure is mandated by law or regulation, valid subpoena or other court order, or if such information otherwise becomes public knowledge.

PERMIT FOR UNDERGROUND STORAGE TANK (UST) SOILS AND LIQUIDS

State of New Mexico

ENVIRONMENT DEPARTMENT

BRUCE KING
GOVERNOR

JUDITH M. ESPINOSA
SECRETARY

RON CURRY
DEPUTY SECRETARY

February 3, 1992

Mr. Ken Marsh,
President
CONTROLLED RECOVERY, INC.
P. O. Box 369
Hobbs, NM 88241

RE: Approved Discharge Plan, DP-818

This is to confirm that CONTROLLED RECOVERY, INC. has met the Water Quality Control Commission standards and has been granted an approved discharge plan from the Groundwater Protection and Remediation Bureau, Groundwater Section of the New Mexico Environment Department for the site located 37 miles west of Hobbs, NM on US 62 for the purpose of receipt and remediation of hydrocarbon contaminated soils. This approved plan is in effect until November 26, 1996.

For additional information, please contact me at the address below, or by telephone, 827-2703.

Sincerely,

Phillis Stevens
Water Resource Specialist
Ground Water Section

PS:mtf

5

PERMIT FOR OIL TREATING PLANT AND SURFACE WASTE DISPOSAL

STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 9882
Order No. R-9166

APPLICATION OF CONTROLLED RECOVERY INC.
FOR AN OIL TREATING PLANT PERMIT, SURFACE
WASTE DISPOSAL AND AN EXCEPTION TO ORDER
NO. R-3221, LEA COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on April 4, 1990, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 27th day of April, 1990, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) Decretory Paragraph No. (3) of Division Order No. R-3221, as amended, prohibits in that area encompassed by Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, the disposal, subject to minor exceptions, of water produced in conjunction with the production of oil or gas, or both, on the surface of the ground, or in any pit, pond, lake, depression, draw, streambed, or arroyo, or in any water course, or in any other place or in any manner which would constitute a hazard to any fresh water supplies.

(3) The aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.

(4) The State Engineer has designated all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(5) The applicant, Controlled Recovery Inc., seeks authority to construct and operate a surface waste disposal facility and an oil treating plant for the purpose of treating and reclaiming sediment oil and for the collection, disposal, evaporation, or storage of produced water, drilling fluids, drill cuttings, completion fluids and other non-hazardous oilfield related waste in unlined surface pits at a site in the S/2 N/2 and the N/2 S/2 of Section 27, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico.

(6) The applicant proposes to install and operate an effective system, consisting of separating tanks, a water disposal pit, a solids disposal pit, and associated skimming, heat, and/or chemical separating equipment for the removal and reclamation of oil and basic sediments from the produced water to be disposed of, and a settling area to separate other solid waste.

(7) The proposed plant and method of processing will efficiently process, treat, and reclaim the aforementioned waste oil, thereby salvaging oil which would otherwise be unrecoverable.

(8) No interested party appeared at the hearing in opposition to the application.

(9) A naturally occurring salt lake (Laguna Toston) is located in the S/2 of Section 21 and the N/2 of Section 28, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico, and is approximately three-quarters of a mile from the proposed disposal area.

(10) The hydrogeologic evidence presented in this case establishes that:

a) Triassic redbeds, comprised of the Chinle Shale, Santa Rosa sandstone, and the Dewey Lake formation, underlies both Laguna Toston and the proposed water disposal site;

b) Shales within the Triassic redbeds underlying the proposed waste disposal site and Laguna Toston are virtually impermeable and therefore prevent vertical seepage of the waters from the site and Laguna Toston into sand stringers with the redbeds which may contain fresh water;

c) The surface of the Triassic redbeds is depressed in the vicinity of the waste disposal site and Laguna Toston thus creating a "collapse feature";

d) The major flow of surface and subsurface water within the boundaries of the "collapse feature" is toward Laguna Toston;

e) Seepage from the Impoundments at the proposed waste disposal site will infiltrate into the subsurface and migrate toward Laguna Toston;

f) After the seepage reaches Laguna Toston, practically all of the seepage will evaporate;

g) There is no present or reasonably foreseeable beneficial use of the waters of Laguna Toston;

h) There are no known sources of potable groundwater in sediments underlying the Triassic redbeds at Laguna Toston;

i) The utilization of the proposed disposal site adjacent to Laguna Toston for the disposal of water produced in conjunction with the production of oil or gas, or both, and other non-hazardous oilfield waste products, including drill cuttings and drilling muds should not constitute a hazard to any fresh water supplies.

(11) The applicant should be authorized to utilize the unlined pits described in Finding Paragraph Nos. (5) and (6) above, for the disposal of water produced in conjunction with the production of oil or gas, or both, and other non-hazardous oilfield waste products, including drill cuttings and drilling muds.

(12) The maximum fill level in both of the above-described pits should be limited to a plane below the crest of the dikes surrounding the pits in order to preclude over-topping of the dikes.

(13) The proposed oil treating plant and disposal facility should be constructed in accordance with the engineering plat and topographic map presented as evidence in this case and in accordance with such additional conditions and requirements as may be directed by the Division Director, and should be operated and maintained in such a manner as to preclude spills and fires, and protect persons and livestock.

(14) Prior to initiating operations, the facility should be inspected by a representative of the Hobbs district office of the Division in order to determine the adequacy of fences, gates and cattleguards necessary to preclude livestock and unauthorized persons from entering and/or utilizing said facility, and also to determine the adequacy of dikes and berms needed to assure safe plant operation.

(15) The Director of the Division should be authorized to administratively grant approval for the expansion or modification of the proposed treating plant.

(16) Authority for operation of the treating plant and disposal facility should be suspended or rescinded whenever such suspension or rescission should appear necessary to protect human health or property, to protect fresh water supplies from contamination, to prevent waste, or for non-compliance with the terms and conditions of this order or Division Rules and Regulations.

(17) Prior to constructing said facility, the applicant should be required to submit to the Santa Fe office of the Division a surety or cash bond in the amount of $25,000 in a form approved by the Division.

(18) Authority for operation of the treating plant and disposal facility should be transferrable only upon written application and approval by the Division Director.

(19) The granting of this application should not endanger designated fresh water supplies, and will prevent waste by allowing the recovery of otherwise unrecoverable oil.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Controlled Recovery Inc., is hereby authorized to construct and operate a surface waste disposal facility complete with unlined surface pits and an oil treating plant at a site in the S/2 N/2 and the N/2 S/2 of Section 27, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico, for the purpose of treating and reclaiming sediment oil and for the collection, disposal, evaporation, or storage of produced water, drilling fluids, drill cuttings, completion fluids and other non-hazardous oilfield related waste.

PROVIDED HOWEVER THAT, the proposed oil treating plant and disposal facility shall be constructed in accordance with the engineering plat and topographic map presented as evidence in this case and in accordance with such additional conditions and requirements as may be directed by the Division Director, and shall be operated and maintained in such manner as to preclude spills and fires, and protect persons and livestock.

PROVIDED FURTHER THAT, prior to initiating operations, the facility shall be inspected by a representative of the Hobbs district office of the Division in order to determine the adequacy of fences, gates and cattleguards necessary to preclude livestock and unauthorized persons from entering and/or utilizing said facility, and also to determine the adequacy of dikes and berms needed to assure safe plant operation.

(2) The maximum fill level in both of the proposed unlined surface pits shall be limited to a plane below the crest of the dikes surrounding the pits in order to preclude over-topping of the dikes.

(3) The Director of the Division shall be authorized to administratively grant approval for the expansion or modification of the proposed treating plant.

(4) Authority for operation of the treating plant and disposal facility shall be suspended or rescinded whenever such suspension or rescission should appear necessary to protect human health or property, to protect fresh water supplies from contamination, to prevent waste, or for non-compliance with the terms and conditions of this order or Division Rules and Regulations.

(5) Prior to constructing said facility, the applicant shall submit, to the Santa Fe office of the Division, a surety or cash bond in the amount of $25,000 in a form approved by the Division.

(6) Authority for operation of the treating plant and disposal facility shall be transferrable only upon written application and approval by the Division Director.

(7) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Original on file
Santa Fe, New Mexico

WILLIAM J. LEMAY
Director

LANDFARM APPROVAL

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

September 13, 1990

CERTIFIED MAIL
RETURN RECEIPT NO. P-918-402-355

Mr. Ken Marsh, President
Controlled Recovery, Inc.
P. O. Box 369
Hobbs, New Mexico 88241

RE: Landfarm Operation
Controlled Recovery Disposal Facility
Lea County, New Mexico

Dear Mr. Marsh:

The Oil Conservation Division (OCD) has reviewed your application for operation of an oilfield waste landfarm at your previously approved disposal facility located in Section 27, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico.

Pursuant to OCD Rule 711 the landfarm operation is hereby approved. The landfarm will be constructed and operated pursuant to the terms and conditions contained in your application dated August 2, 1990 and in your information dated September 12, 1990 submitted as a supplement to the application.

Please be advised approval of this landfarm does not relieve you of liability should your operation result in actual pollution of surface or ground water or the environment actionable under other laws and/or regulations.

If you have any questions, please contact Roger Anderson at (505) 827-5884.

Sincerely,

William J. LeMay, Director

WJL/RCA/sl

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

NOV - 1995

NOV 27 1995

Mr. Gail Power
Controlled Recovery Inc.
P.O. Box 369
Hobbs, NM 88241

Dear Mr. Power:

In response to your letter dated April 6, 1994, the U.S. Environmental Protection Agency (EPA) has determined that the Controlled Recovery, Inc., (CRI) facilities in Hobbs, New Mexico, operating under the New Mexico Environment Department discharge permit #DP-818 and the Oil Conservation Division permit #R-9166, are acceptable for the receipt of hazardous substances, pollutants or contaminants (that are not Resource Conservation and Recovery Act hazardous wastes) from Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) response actions. The facilities' actual receipt of CERCLA wastes must be in accordance with applicable State and Federal requirements.

This determination is made pursuant to the requirements prescribed in 40 CFR § 300.440 (58 FR 49200, 49215 - 49218 September 22, 1993) and is based upon communication with representatives of the New Mexico Environment Department and representatives of the Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department. If conditions change, or if new information reveals violations exist, then the acceptability of these facilities may be affected.

If you have any questions regarding this letter, please contact Ms. Eve Boss at (214) 665-6651.

Sincerely yours,

Samuel Coleman

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

cc: Mr. Mark Weidler
New Mexico Environment Department
Ms. Marcy Leavitt
New Mexico Environment Department
Mr. William J. LeMay
New Mexico Energy, Minerals and Natural Resources Department
Mr. Roger C. Anderson
New Mexico Energy, Minerals and Natural Resources Department

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

NOV 1995

NOV 27 1995

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Sincerely yours,

Samuel Coleman

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

cc: Mr. Mark Weidler
New Mexico Environment Department
Ms. Marcy Leavitt
New Mexico Environment Department
Mr. William J. LeMay
New Mexico Energy, Minerals and Natural Resources Department
Mr. Roger C. Anderson
New Mexico Energy, Minerals and Natural Resources Department

CRI

CONTROLLED RECOVERY INC.

Customer List

This list is representative for presentation and does not include all companies that have used the CRI facility. Listed alphabetically.

ARCO
Amerada-Hess Corp.
Ashland Chemical Co.
BJ Services Co.
Baker Hughes
Baroid Drilling Fluids, Inc.
Brown and Caldwell
Champion Technologies, Inc.
City of Big Spring, Texas
City of Hobbs, Hobbs, New Mexico
City of Roswell, Roswell, New Mexico
Community National Bank
Conoco, Inc.
County of Lea, Lovington, New Mexico
David Arrington Oil & Gas, Inc.
Devon Energy Corp.
Dowell Schlumberger
Dresser Industries
Eco-Logical Environmental Services, Inc.
El Paso Natural Gas Co.
Enron Oil & Gas Co.
Entact, Inc.
ENSR Consulting Co.
Exxon Co.
Fina Oil & Chemical Co.
Fluor Daniel, GTI
Gas Company of New Mexico
Geraghty & Miller
GPM Gas Corp.
Halliburton Energy Services
Highlander Environmental Co.
J.L. Envrionmental, Inc.
Jones & Neuse Inc.
Kerr McGee Corp.
Koch Gathering Systems
LTV
MI Drilling Fluids
Marathon Oil Co.
Navajo Refining Co.
Nickell Environmental Corp.
Norwest Bank
Oxy, USA
Pan Energy (Duke Power Co.)
Pfizer, Inc.
Phillips Petroleum, Co.
Philip Environmental Co.
Plains National Bank
Pride Refining Co.
Remedial Construction Services, Inc.
Rexene Corp.
Samedan Oil Co.
Santa Fe Energy Resources, Inc.
Santa Fe Pacific Pipeline
Scurlock Permian Corp.
Shell Western Exploration & Production Co.
Shell Pipeline Co.
Smith International, Inc.
Spirit Energy 76
State of New Mexico
Stevenson & Roach
Sweewater Corp.
Texaco, Inc.
Tretolite/Petrolite Chemical Co.
Twin Mountain Construction
United States Corps of Engineers
United States Department of Defense
United States Air Force
1. Cannon Air Force Base, Clovis, NM
2. Holloman Air Force Base, Alamagordo, NM
3. Webb Air Force Base, Big Spring, Texas
United States Department of Energy
1. WIPP Site, Carlsbad, New Mexico
United States Post Office, Midland, Texas
Unocal
Weatherford Enterra
Westinghouse Electric Co.
Yates Petroleum

ACORD CERTIFICATE OF LIABILITY INSURANCE

OP ID: KR
CONTR 2

DATE (MM/DD/YY)
07/09/97

PRODUCER
[redacted]ELL INSURANCE, INC.
O. BOX 858
OBBS, NM 88241

[redacted]VE USLAN
Phone No. 505-393-2550 Fax No. 505-393-6539

INSURED
[redacted]
CONTROLLED RECOVERY, INC.
P.O. BOX 369
HOBBS NM 88241

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

COMPANIES AFFORDING COVERAGE

COMPANY A: United National Insurance Co.

COMPANY B: St. Paul Fire & Marine Ins.

COMPANY C: USF&G Co.

COMPANY D:

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
	GENERAL LIABILITY				GENERAL AGGREGATE	$ 2,000,000
[redacted]	[X] COMMERCIAL GENERAL LIABILITY	L-7115190	12/31/96	12/31/97	PRODUCTS - COMP/OP AGG	$ included
	[ ] CLAIMS MADE [X] OCCUR				PERSONAL & ADV INJURY	$ included
	OWNER'S & CONTRACTOR'S PROT				EACH OCCURRENCE	$ 1,000,000
[redacted]	[X] Pollution Liab	L-7115190 POLLUTION LIAB (CLAIMS MADE FORM)	12/31/96	12/31/97	FIRE DAMAGE (Any one fire)	$ N/A
					MED EXP (Any one person)	$ EXCLUDED
	AUTOMOBILE LIABILITY					
E	[X] ANY AUTO	CK08306724	12/31/96	12/31/97	COMBINED SINGLE LIMIT	$ 1,000,000
	ALL OWNED AUTOS				BODILY INJURY (Per person)	$
	SCHEDULED AUTOS					
	HIRED AUTOS				BODILY INJURY (Per accident)	$
	NON-OWNED AUTOS				PROPERTY DAMAGE	$
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	$
	ANY AUTO				OTHER THAN AUTO ONLY:	
					EACH ACCIDENT	$
					AGGREGATE	$
	EXCESS LIABILITY				EACH OCCURRENCE	$ 1,000,000.
A	[X] UMBRELLA FORM	UNASSIGNED	06/20/97	06/20/98	AGGREGATE	$ 1,000,000.
	OTHER THAN UMBRELLA FORM					$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				[X] WC STATUTORY LIMITS [ ] OTHER	
	THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: [ ] INCL	0118857975	03/15/97	03/15/98	EL EACH ACCIDENT	$ 1,000,000.
[redacted]	[ ] EXCL	0118857975	03/15/97	03/15/98	EL DISEASE - POLICY LIMIT	$ 1,000,000.
					EL DISEASE - EA EMPLOYEE	$ 1,000,000.
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

CERTIFICATE HOLDER

SAMPLE1

SAMPLE

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

STEVE USLAN

STATEMENT OF QUALIFICATIONS

NORM SERVICES

Lotus LLC

P.O. Box 1277

Andrews, Texas 79714

(915) 523-3320 Office

1-888-414-3320

(915) 524-4993 Fax

Revised 12/13/00

PROFESSIONAL SERVICES:

- **NORM Processing and Disposal**
- **Site Assessment and Surveys**
- **On Site Decontamination**
- **Regulatory Consulting**
- **Health Physics**
- **Air, Soil, Water, Scale, and Sludge Sampling**
- **Radiation Safety Officer Services**
- **Export Permitting from Rocky Mountain Compact States**
- **Tubular Decontamination**
- **Vessel Decontamination**
- **Hazardous Waste Transportation**
- **Hazardous and Mixed Waste Disposal**
- **Roll Off Container Rental**

LOTUS LLC

"Responsible solutions for a secure tomorrow"

Lotus, L.L.C.
P O Box 1277
Andrews, TX 79714
(915)523-3320 – Phone
(915) 524-4993 – Fax

Company's total number of years of environmental and/or oilfield experience: **27**

Project Name and Location	**Nature of Company's Services**	**Cost of Entire Project**	**Cost of Company Performed**
1) Fogelle State South Panna Maria, TX	Performed remediation services as prime contractor, including hazardous and NORM Contaminated materials, removal and disposal	$256,177.77	$171,598.91
2) Oxy Oil Co. Eldorado, Kansas	Performed remediation services as prime contractor, including hazardous and NORM Contaminated materials, removal and disposal	$1,228,292.75	$822,958.15
3) Oxy Oil Co. Lindsay, OK	Performed remediation services as prime contractor, including hazardous and NORM Contaminated materials, removal and disposal	$96,314.00	$64,610.38
4) Southwest Ramos Amelia, LA	Performed remediation services as prime contractor, including hazardous and NORM Contaminated materials, removal and disposal	$30,104.00	$30,104.00
5) Railroad Commission Merkel, Texas	Performed remediation services as prime contractor, including hazardous and NORM Contaminated materials, removal and disposal	$261,221.89	$261,221.89
6) Richard SWD Richard, LA	Performed remediation services as prime contractor, including hazardous and NORM Contaminated materials, removal and disposal	$90,001.00	$90,001.00

Lotus, L.L.C.
P O Box 1277
Andrews, TX 79714
(915)523-3320 – Phone
(915) 524-4993 – Fax

Bidders Project Manager: Dan W. Snow
Project Manager's total number of years of environmental and/or oilfield experience: **24**

Project Name and Location	**Nature of Company's Services**	**Cost of Entire Project**	**Cost of Company Performed**
1) Fogelle State South Panna Maria, TX	Contractor-Remediation services, hazardous and radioactive material removal, disposal And decontamination	$256,177.77	$171,598.91
2) Oxy Oil Co. Eldorado, Kansas	Contractor-Remediation services, hazardous and radioactive material removal, disposal And decontamination	$1,228,292.75	$822,958.15
3) Oxy Oil Co. Lindsay, OK	Contractor-Remediation services, hazardous and radioactive material removal, disposal And decontamination	$96,314.00	$64,610.38
4) BTA Oil Producers Post, Texas	Performed site remediation, oil well P&A spill prevention and remediation.	$845,000.00	$845,000.00
5) Railroad Commission Merkel, Texas	Contractor-Remediation services, hazardous and radioactive material removal, disposal And decontamination	$261,221.89	$261,221.89
6) Richard SWD Richard, LA	Contractor-Remediation services, hazardous and radioactive material removal, disposal And decontamination	$90,001.00	$90,001.00

Permits

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous & Radioactive Materials Bureau
2044 Galisteo Street
P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-1557
Fax (505) 827-1544

GARY E. JOHNSON
GOVERNOR

PETER MAGGIORE
SECRETARY

PAUL R. RITZMA
DEPUTY SECRETARY

Thursday, July 06, 2000

Jerry Kelly, RSO
Lotus, LLC
P. O. Box 1277
Andrews, TX 79714

SUBJECT: NOTICE OF RECIPROCAL RECOGNITION OF LICENSE IN NEW MEXICO FOR 2000

License Number: L05147 Am# 3
Issuing Agency: Texas
License Expiration Date: Sunday, July 31, 2005

Thank you for your request for reciprocity. In accordance with your request and pursuant to New Mexico Radiation Protection Regulation (NMRPR) 324.A., you are hereby authorized to possess and utilize radioactive materials at temporary job sites in areas not under exclusive Federal jurisdiction within the State of New Mexico. Reciprocity is granted for one calendar year. This authorization is void after December 31, 2000, or when activities have exceeded 180 days in the calendar year, whichever occurs first.

Your are required to notify the Department in writing at least three (3) days prior to each use of radioactive material in New Mexico. Further, you must notify the Department within one (1) hour after arrival at the actual work location within the State, and notify the Department within one (1) hour after any change in work location within the State. Please note that you may be subject to a routine field inspection at anytime.

Special Conditions: The following must be in the possession of the users at the work site: (1) A copy of this letter; (2) a complete copy of the NMRPR or Section 324 and Subparts 4, 5, and 10; the regulations may be purchased from Santa Fe Printing (505) 982-8111, or downloaded off the internet from the State website www.nmenv.state.nm.us; (3) a copy of the Radioactive Materials License; (4) a complete inventory of sources brought into the State; (5) pertinent U.S. DOT documents; (6) leak test records for sources brought into the State; (7) instrument calibration records; and (8) personnel training records.

If I can be of assistance, you may contact me at (505) 827-1866 or fax (505) 827-1863.

Sincerely,

Sherry Miller

Sherry A. Miller
Radiation Specialist

P.O. Box 1277
Andrews, Texas 79714
(915) 523-3320 Office
(915) 524-4993 Fax
jhudson@lotusllc.com E-mail

LOTUS
LLC

January 26, 2001

State of New Mexico
Attn: Sherry Miller
Environmental Department
P O Box 26110
Santa Fe, NM 87502

Re: Notice of Reciprocal Recognition of License in New Mexico for 2001
License No.: L05147 Amendment #5
Issuing Agency: Texas
License Expiration Date: Sunday, July 31, 2005

Dear Ms. Miller,

Lotus, L.L.C. would like to renew their Reciprocity Agreement with the State of New Mexico for the calendar year 2001. Attached is Lotus's current license with Amendment Number 5, everything else is the same as last year.

If you need additional information or have any questions, please feel free to contact me at the above referenced letterhead.

Sincerely,

Jeff Hudson
Radiation Safety Officer

Enclosure

Cc: file

JH/db

NMreprocity.doc

Texas Department of Health
BUREAU OF RADIATION CONTROL

RADIOACTIVE MATERIAL LICENSE

Pursuant to the Texas Radiation Control Act and Texas Health Department regulations on radiation, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess and transfer radioactive material listed below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations and orders of the Texas Department of Health (Agency) now or hereafter in effect and to any conditions specified below.

LICENSEE	This license is issued in response to a letter
1. Name: LOTUS LLC ATTN **JEFFERY H HUDSON**	dated: August 30, 2000
2. Address: PO BOX 1277 ANDREWS TX 79714	signed by: Dan Snow
	3. License Number: L05147 — Amendment Number: 05
	PREVIOUS AMENDMENTS ARE VOID
	4. Expiration Date: July 31, 2005

RADIOACTIVE MATERIAL AUTHORIZED

5. Radioisotope	6. Form of Material	7. Maximum Activity*	8. Authorized Use
A. Naturally occurring radioactive material (NORM) as defined in *TAC §289.259	A. Solid, sludge or liquid	A. For the Andrews facility: 2 Ci total concentrations not to exceed 10 μCi per gram. For jobs at customers facilities: As needed for each job.	A. Decontamination of NORM contaminated pipe, equipment and materials. Possession incidental to decontamination of NORM contaminated pipe, equipment and materials. Temporary storage prior to transfer to original generator, authorized recipients and/or authorized NORM disposal facilities.

* Ci-Curies mCi-Millicuries μCi-Microcuries **Title 25 Texas Administrative Code

9. Radioactive material shall only be stored and used at:

Site Number	Location
000	Andrews - Lotus facility located 19 miles west of Andrews (Highway 176 West from Andrews, 4 miles south of intersection with Highway 176 on FM 181, then 2.5 miles West on SW 570 to Lotus facility.

10. The individual designated to perform the functions of Radiation Safety Officer (RSO) for activities covered by this license is **Jeffery H. Hudson**.

11. The authorized place of use is also at temporary sites, in areas <u>not</u> under exclusive Federal jurisdiction, throughout Texas.

12. Each site shall maintain documents and records pertinent to the operations at that site. Copies of all documents and records required by this license shall be maintained for Agency review at Site 000.

13. The licensee shall comply with the provisions of (as amended) 25 TAC §289.201, §289.202, §289.203, §289.204, §289.205, §289.251, 289.252, §289.257, and §289.259.

14. Radioactive material shall be used by, or under the direct supervision of, individuals designated by the RSO only after each worker has successfully completed an Agency accepted training course. Documentation verifying the successful completion of the training for each worker shall be maintained by the licensee for inspection by the Agency.

Texas Department of Health
BUREAU OF RADIATION CONTROL

RADIOACTIVE MATERIAL LICENSE

LICENSE NUMBER	AMENDMENT NUMBER
L05147	05

15. Financial assurance in the amount of $175,000 shall be established with and accepted by the agency, as evidenced by written notification from the agency, prior to receipt of NORM at the facility.

16. The licensee shall provide written notification to the Agency:

A. At least five (5) days prior to commencing NORM decontamination or remediation activities. The notification shall specify the following:

(1) type of operation;
(2) the mode of decontamination (if more than one mode is authorized on the license);
(3) address and physical location of the decontamination or remediation activity;
(4) dates when the activity will be conducted; and
(5) the name of the person in charge of the operation at the site.

B. within 7 days of completion of decontamination work for a customer at the customer's site. The notification shall specify the following:

(1) customer name,
(2) customer mailing address,
(3) customer telephone number,
(4) quantity of contaminated material generated as a result of the decontamination process, and
(5) disposition of contaminated material.
(a) If contaminated material is left in the possession of the customer, the licensee shall also submit the following information:

(i) method (e.g., drums) of storage of contaminated material,
(ii) site where material is stored (provide map if street address is not available)
(iii) location at site where material is stored, and
(iv) storage conditions (e.g., metal shed, pallets on open ground, etc.).

C. This information shall be addressed to the following:

NORM Decontamination Notification
ATTN: Division of Compliance and Inspection
Bureau of Radiation Control
Texas Department of Health
1100 W. 49th Street
Austin, Texas 78756-3189 or
by facsimile to: (512) 834-6654.

18. A. The licensee shall conduct unannounced audits each month to assure that procedures are being conducted at the appropriate frequency and in the appropriate manner. These audits shall be conducted by the RSO. These audits shall as a minimum consist of the following:

(1) survey location for personnel,
(2) material receipt procedures,
(3) processing procedures,
(4) personnel survey procedures,
(5) personnel monitoring procedures,
(6) equipment and material release surveys,
(7) material balance records and calculations,

RADIOACTIVE MATERIAL LICENSE

LICENSE NUMBER	AMENDMENT NUMBER
L05147	05

18. (continued)

(8) transfer and disposition records,
(9) occupational and environmental air monitoring procedures,
(10) facility survey procedures, and
(11) posting and noticing requirements

B. The licensee shall document these audits by recording the date of the audit, the person conducting the audit, the findings of the audit, and any corrective action taken. These records shall be retained for inspection by the Agency.

19. Except as specifically provided otherwise by this license, the licensee shall possess and use the radioactive material authorized by this license in accordance with statements, representations, and procedures contained in the following:

application dated: December 22, 1997;

letters dated: February 22, 2000 and May 8, 2000

Title 25 TAC Chapter 289 shall prevail over statements contained in the above documents unless such statements are more restrictive than the regulations.

EFF:ef

FOR THE TEXAS DEPARTMENT OF HEALTH

Date November 6, 2000

Eugene F. Forrer II, Chief
Uranium/Norm Licensing Program

RAILROAD COMMISSION OF TEXAS
OFFICE OF GENERAL COUNSEL

OIL AND GAS DOCKET
NO. 08-0214236

IN THE FUHRMAN-MASCHO FIELD
ANDREWS COUNTY, TEXAS

FINAL ORDER
APPROVING THE APPLICATION OF LOTUS, L.L.C. FOR PIT PERMIT AND DISPOSAL WELL PERMIT TO MANAGE AND DISPOSE OF NORM WASTE IN THE FUHRMAN-MASCHO FIELD ANDREWS COUNTY, TEXAS

The Commission finds that after statutory notice in the above-numbered docket heard on December 4, 1996, the presiding examiner has made and filed a report and recommendation containing findings of fact and conclusions of law, for which service was not required that the proposed application is in compliance with all statutory requirements; and that this proceeding was duly submitted to the Railroad Commission of Texas at conference held in its offices in Austin, Texas.

The Commission, after review and due consideration of the examiner's report and recommendation, the findings of fact and conclusions of law contained therein, hereby adopts as its own the findings of fact and conclusions of law contained therein, and incorporates said findings of fact and conclusions of law as if fully set out and separately stated herein.

Therefore, it is ordered by the Railroad Commission of Texas that the application of LOTUS, L.L.C. for Pit Permit No. P010928 and an Injection Well Permit for the Lotus Lease, Well No. 1, to authorize management and disposal of oil and gas NORM in the Fuhrman-Mascho Field, Andrews County, Texas, be and it is hereby approved subject to the conditions and limitations indicated in Exhibits A and B.

Done this 17th day of December, 1996.

RAILROAD COMMISSION OF TEXAS

CHAIRMAN

COMMISSIONER

COMMISSIONER

ATTEST:
Secretary

EXHIBIT A

PERMIT TO MAINTAIN AND USE A PIT

Pit Permit No. P010928

LOTUS, L.L.C.
P.O. Box 1277
Andrews County, TX 79714

Based on information contained in your application (Form H-11) dated November 6, 1996, you are hereby authorized to maintain and use the pit designated herein:

Type of Pit: Oil and Gas NORM Waste Collecting Pit [LINED]
LOTUS Disposal Facility
1980 feet FSL and 660 feet FEL of Section 8, Block A-47, PSL Survey,
Andrews County, RRC District 03

Authority is granted to maintain and use the pit in accordance with Statewide Rule 8 and subject to the following conditions:

1. Use of the pit is limited to collection of nonhazardous oil and gas waste, including oil and gas NORM waste at or below levels specified in the permit application, prior to disposal in the following well: LOTUS Lease, Well No. 1

2. The pit must be constructed of concrete at least 12 inches thick.

3. The capacity of the pit may not exceed 416 barrels.

4. At least 2 feet of freeboard must be maintained between the fluid level in the pit and the top of the pit.

5. The facility shall have security to prevent unauthorized access. Access shall be secured by a 24-hour attendant, a fence and locked gate when unattended, or a key-controlled access system. For a facility without a 24-hour attendant, fencing shall be required unless terrain or vegetation prevents truck access except through entrances with lockable gates.

6. The permittee shall comply with the worker protection standards as defined in 16 TAC §3.94 (Rule 94, Disposal of Oil and Gas NORM Waste).

7. Records must be kept of each load of waste received at the pit. Records must include:

   a) the identity of the property where any oil and gas NORM waste was generated, including the Commission district; field; lease, unit, facility, or offshore tract;
   b) the identity of the facility, site, or well where the oil and gas NORM waste was disposed of if other than the disposal wells referenced in Condition No. 1;
   c) the physical nature (i.e., pipe scale, contaminated soil, basic sediment) of the oil and gas NORM waste;
   d) the volume of oil and gas NORM waste received in the pit prior to disposal; and
   e) the radioactivity level(s) of the oil and gas NORM waste (in pCi/g of Radium-226 and 228).

   A copy of the records must be filed quarterly with the Assistant Director for Environmental Services and the Midland District Office.

8. No oil may be allowed to accumulate on top of waste collected in the pit. Any oil on top of the waste must be skimmed off.

9. The pit must be emptied and inspected monthly for deterioration and/or leaks. The Midland District Office must be notified at least 48 hours before each inspection. The pit must also be inspected whenever evidence of pit leakage arises. If inspection of the pit reveals a leak, the pit must be repaired before use of the pit is resumed.

10. The permittee must maintain a record of when the pit is inspected and the results of each inspection. This record must be maintained by the permittee for the life of the pit, and, upon request of the Commission, the record shall be filed with the Commission.

11. Unless otherwise required by conditions of this permit, construction, use, and maintenance of the pit shall be in accordance with the information represented on the application (Form H-11) and attachments thereto.

12. A sign shall be posted at the pit which shall show the pit permit number in numerals at least one inch in height.

13. The pit must be dewatered, emptied, and closed within 120 days of final cessation of use of the pit. Final closure of the pit must be accomplished in such a manner that rainfall will not collect at the pit location after pit closure. Upon final closure, the District Office shall be notified in writing.

14. This permit is nontransferable without the consent of the Commission. Any request for permit transfer must be filed with Environmental Services.

15. This permit does not authorize the discharge of any oil and gas wastes from the pit to the ground or surface water or groundwater.

16. This permit may be considered for administrative renewal upon review by Environmental Services.

17. Within one year after active disposal operations cease at the facility and prior to release of the facility for unrestricted use, the permittee shall decontaminate the land surface and any equipment not otherwise exempted under the provisions of §46.4(a)(2), Texas Regulations for Control of Radiation (TRCR). For purposes of this provision, the land surface shall be considered decontaminated when the levels of Radium 226 and Radium 228 do not exceed 5 pCi/g above background, unless a higher level is approved by the Commission. Equipment shall be considered decontaminated when it meets the exemption levels set forth in Appendix 46-A, TRCR Part 46.

18. Authority to use the pit expires December 17, 2001 (5 years from date of permit).

This authorization is granted subject to review and cancellation should investigation show that such authorization is being abused.

APPROVED AND ISSUED ON December 17, 1996.

EXHIBIT B

PERMIT TO DISPOSE OF NON-HAZARDOUS OIL AND GAS WASTE, INCLUDING NATURALLY OCCURRING RADIOACTIVE MATERIAL, BY INJECTION INTO A POROUS FORMATION NOT PRODUCTIVE OF OIL AND GAS

PERMIT NO. 10799

LOTUS, L.L.C.
P. O. Box 1277
Andrews, TX 79714

Based on information contained in your application (Form W-14) dated September 9, 1996, you are hereby authorized to dispose of oil and gas waste, including oil and gas NORM waste, into your well designated as follows:

Lotus Lease, Well No. 1, Fuhrman-Mascho Field, Andrews County, RRC District ~~8A~~ 08

Authority is granted to inject in accordance with Statewide Rules 9 and 94 of the Railroad Commission of Texas and subject to the following special and standard conditions:

SPECIAL CONDITIONS:

1. Oil and gas waste shall only be injected into strata in the subsurface depth interval from 5210 feet to 10,300 feet.

2. The injection volume shall not exceed 5,000 barrels per day.

3. The maximum surface injection pressure shall not exceed 2000 psig.

4. Records relating to the disposal of oil and gas NORM waste shall be retained for at least three years after the date of disposal. The records shall include for each shipment disposed of:

   a. the identity of the generator of the oil and gas NORM waste.
   b. the identity of the property where the oil and gas NORM waste was generated, including the district, field, lease, unit, facility, or offshore tract.
   c. the physical nature of the NORM waste (i.e. pipe scale, contaminated soil, etc.)
   d. the volume of the NORM waste.
   e. the radioactivity level of the NORM waste in pCi/g of Radium-226 and Radium-228.

6. The permittee shall comply with the worker protection standards of Rule 94 (c).

7. Within one year after active disposal operations cease at the facility and prior to release of the facility for unrestricted use, the permitted shall decontaminate the land surface at the site and any equipment not otherwise exempted under the provisions of §46.4(a) (2), Texas Regulations for Control of Radiation (TRCR). For purposes of this provision, the land surface shall be considered decontaminated when the levels of Radium 226 and Radium 228 do not exceed 5 pCi/g above background unless a higher level is approved by the Commission. Equipment shall be considered decontaminated when it meets the exception levels set forth in Appendix 46-A, TRCR Part 46.

STANDARD CONDITIONS:

1. Injection must be through tubing set on a packer. The packer must be set no higher than 100 feet above the top of the permitted interval.

2. The District Office must be notified 48 hours prior to:
   a. running tubing and setting packer;
   b. beginning any workover or remedial operation;
   c. conducting any required pressure tests or surveys.

3. The wellhead must be equipped with a pressure observation valve on the tubing and for each annulus.

4. Prior to beginning injection and subsequently after any workover, an annulus pressure test must be performed. The test pressure must equal the maximum authorized injection pressure or 500 psig, whichever is less, but must be at least 200 psig. The test must be performed and the results submitted in accordance with the instructions of Form H-5.

5. The injection pressure and injection volume must be monitored at least monthly and reported annually on Form H-10 to the Commission's Austin office.

6. Within 30 days after completion, conversion to disposal, or any workover which results in a change in well completion, a new Form W-2 or G-1 must be filed in duplicate with the District Office to show the current completion status of the well. The date of the disposal well permit and the permit number must be included on the new Form W-2 or G-1.

7. Written notice of intent to transfer the permit to another operator must be submitted to the Commission at least 15 days prior to the date the transfer will occur by filing Form P-4.

8. Unless otherwise required by conditions of the permit, completion and operation of the well shall be in accordance with the information represented on the application (Form W-14).

9. The operator shall be responsible for complying with the following requirements so as to assure that discharges of oil and gas waste will not occur:

a. All surface facilities for oil and gas waste management must be permitted under the requirements of Statewide Rule 8.

b. A catch basin constructed of concrete, steel, or fiberglass must be installed to catch oil and gas waste which may spill as a result of connecting and disconnecting hoses or other apparatus while transferring oil and gas waste from tank trucks to the disposal facility.

c. All fabricated waste storage and pretreatment facilities (tanks, separators, or flow lines) shall be constructed of steel, concrete, fiberglass, or other materials approved by the Director. These facilities must be maintained so as to prevent discharges of oil and gas waste.

d. Dikes shall be placed around all waste storage, pretreatment, or disposal facilities. The dikes shall be designed so as to be able to contain a volume equal to the maximum holding capacity of all such facilities. Any liquids or wastes that do accumulate in the containment area shall be removed within 24 hours and disposed of in an authorized disposal facility.

e. The facility shall have security to prevent unauthorized access. Access shall be secured by a 24-hour attendant, a fence and locked gate when unattended, or a key-controlled access system. For a facility without a 24-hour attendant, fencing shall be required unless terrain or vegetation prevents truck access except through entrances with lockable gates.

f. Each storage tank shall be equipped with a device (visual gauge or alarm) to alert drivers when each tank is within 130 barrels from being full.

10. Form P-18, Skim Oil Report, must be filed in duplicate with the District Office by the 15th day of the month following the month covered by the report.

Provided further that, should it be determined that such injection fluid is not confined to the approved strata, then the permission given herein is suspended and the disposal operation must be stopped until the fluid migration from such strata is eliminated.

APPROVED AND ISSUED ON December 17, 1996.

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

January 3, 2001

Mr. Dan W. Snow
Manager
Lotus, LLC
P O Box 1277
Andrews, Texas 79714

Re: Lotus (35507) Lease
Well Nos. 2A and 2B
Fuhrman-Mascho Field
Andrews County, Texas

Dear Mr. Snow:

We have received your letter dated December 29, 2000, sonar surveys, and copies of H-5 test reports. You need also to file the completion reports (Form W-2) with the district office if you have not already. Although we note some differences between the proposed well completions and the actual completions, none are considered substantial. In addition, we note that the bottom of the solution-mined interval in Well No. 2B is at a depth of 3200 feet, approximately 80 feet above the base of the Salado Formation, according to information in the permit application. If the bottom of the cavern is becomes deeper than 3200 feet as the horizontal cavern is further developed, then application to amend the injection interval will be necessary.

You are authorized to begin disposal in accordance with disposal well permit nos. 11239 and 11240.

Sincerely yours,

Richard F. Ginn
Deputy Assistant Director
For Underground injection Control
Environmental Services

CC: RRC-Midland

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

PERMIT TO DISPOSE OF NON-HAZARDOUS OIL AND GAS WASTE, INCLUDING NATURALLY OCCURRING RADIOACTIVE MATERIAL, BY INJECTION INTO A POROUS FORMATION NOT PRODUCTIVE OF OIL AND GAS

PERMIT NO. 11240

LOTUS, L.L.C.
P O BOX 1277
ANDREWS TX 79714

Based on information contained in your application (Form W-14) received February 2, 1999, you are hereby authorized to dispose of oil and gas waste, including oil and gas NORM waste, into your well designated as follows:

Lotus Lease (35507), Well No. 2A, Fuhrman-Mascho Field, Andrews County, RRC District 8

Authority is granted to inject in accordance with Statewide Rules 9 and 94 of the Railroad Commission of Texas and subject to the following special and standard conditions:

SPECIAL CONDITIONS:

1. Oil and gas waste shall only be injected into a cavern in a salt formation in the subsurface depth interval from 2400 feet to 3100 feet.

2. The injection volume shall not exceed 10,000 barrels per day.

3. The maximum surface injection pressure shall not exceed 250 psig for fresh water injection and 175 psig for 10-pound brine injection.

4. Prior to beginning disposal operations in the cavern disposal system, the cavern capacity shall be determined by sonar survey or other Commission approved method.

5. The results of the sonar survey or other method shall be reported to the Commission's Austin office prior to beginning disposal.

6. Records relating to the disposal of oil and gas NORM waste shall be retained for at least three years after the date of disposal. The records shall include for each shipment disposed of:

   a. the identity of the generator of the oil and gas NORM waste.
   b. the identity of the property where the oil and gas NORM waste was generated, including the district, field, lease, unit, facility, or offshore tract.
   c. the physical nature of the NORM waste (i.e. pipe scale, contaminated soil, etc.)
   d. the volume of the NORM waste.
   e. the radioactivity level of the NORM waste in pCi/g of Radium-226 and Radium-228.

7. The permittee shall comply with the worker protection standards of Rule 94 (c).

8. A radiation safety officer (RSO) shall be on location during any activity that involves the retrieval of logging or workover tools, tubulars, or equipment from the well after NORM disposal begins.

9. Within one year after active disposal operations cease at the facility and prior to release of the facility for unrestricted use, the permitted shall decontaminate the land surface at the site and any equipment not otherwise exempted under the provisions of TAC § 289.259(d) (2). For purposes of this provision, the land surface shall be considered decontaminated when the levels of Radium 226 and Radium 228 do not exceed 5 pCi/g above background or do not exceed the level specified in Statewide Rule 94, whichever is greater. Equipment shall be considered decontaminated when it meets the exception levels set forth in § 289.259(w).

STANDARD CONDITIONS:

1. Injection must be through tubing set on a packer. The packer must be set no higher than 100 feet above the top of the permitted interval.

2. The District Office must be notified 48 hours prior to:
   a. running tubing and setting packer;
   b. beginning any workover or remedial operation;
   c. conducting any required pressure tests or surveys.

3. The wellhead must be equipped with a pressure observation valve on the tubing and for each annulus.

4. Prior to beginning injection and subsequently after any workover, an annulus pressure test must be performed. The test pressure must equal the maximum authorized injection pressure or 500 psig, whichever is less, but must be at least 200 psig. The test must be performed and the results submitted in accordance with the instructions of Form H-5.

5. The injection pressure and injection volume must be monitored at least monthly and reported annually on Form H-10 to the Commission's Austin office.

6. Within 30 days after completion, conversion to disposal, or any workover which results in a change in well completion, a new Form W-2 or G-1 must be filed in duplicate with the District Office to show the current completion status of the well. The date of the disposal well permit and the permit number must be included on the new Form W-2 or G-1.

7. Written notice of intent to transfer the permit to another operator must be submitted to the Commission at least 15 days prior to the date the transfer will occur by filing Form P-4.

8. Unless otherwise required by conditions of the permit, completion and operation of the well shall be in accordance with the information represented on the application (Form W-14).

9. The operator shall comply with financial security requirements of Statewide Rule 78.

10. The operator shall be responsible for complying with the following requirements so as to assure that discharges of oil and gas waste will not occur:

    a. All surface facilities for oil and gas waste management must be permitted under the requirements of Statewide Rule 8.

    b. A catch basin constructed of concrete, steel, or fiberglass must be installed to catch oil and gas waste which may spill as a result of connecting and disconnecting hoses or other apparatus while transferring oil and gas waste from tank trucks to the disposal facility.

    c. All fabricated waste storage and pretreatment facilities (tanks, separators, or flow lines) shall be constructed of steel, concrete, fiberglass, or other materials approved by the Director. These facilities must be maintained so as to prevent discharges of oil and gas waste.

    d. Dikes shall be placed around all waste storage, pretreatment, or disposal facilities. The dikes shall be designed so as to be able to contain a volume equal to the maximum holding capacity of all such facilities. Any liquids or wastes that do accumulate in the containment area shall be removed within 24 hours and disposed of in an authorized disposal facility.

    e. The facility shall have security to prevent unauthorized access. Access shall be secured by a 24-hour attendant, a fence and locked gate when unattended, or a key-controlled access system. For a facility without a 24-hour attendant, fencing shall be required unless terrain or vegetation prevents truck access except through entrances with lockable gates.

f. Each storage tank shall be equipped with a device (visual gauge or alarm) to alert drivers when each tank is within 130 barrels from being full.

11. Form P-18, Skim Oil Report, must be filed in duplicate with the District Office by the 15th day of the month following the month covered by the report.

Provided further that, should it be determined that such injection fluid is not confined to the approved strata, then the permission given herein is suspended and the disposal operation must be stopped until the fluid migration from such strata is eliminated.

APPROVED AND ISSUED ON July 27, 1999.

Richard F. Ginn, Deputy Assistant Director
for Underground Injection Control

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

PERMIT TO DISPOSE OF NON-HAZARDOUS OIL AND GAS WASTE, INCLUDING NATURALLY OCCURRING RADIOACTIVE MATERIAL, BY INJECTION INTO A POROUS FORMATION NOT PRODUCTIVE OF OIL AND GAS

PERMIT NO. 11239 2B

LOTUS, L.L.C.
P O BOX 1277
ANDREWS TX 79714

Based on information contained in your application (Form W-14) received February 2, 1999, you are hereby authorized to dispose of oil and gas waste, including oil and gas NORM waste, into your well designated as follows:

Lotus Lease (35507), Well No. 2B Fuhrman-Mascho Field, Andrews County, RRC District 8

Richard 6-NN OK

Authority is granted to inject in accordance with Statewide Rules 9 and 94 of the Railroad Commission of Texas and subject to the following special and standard conditions:

SPECIAL CONDITIONS:

1. Oil and gas waste shall only be injected into a cavern in a salt formation in the subsurface depth interval from 2400 feet to 3100 feet.

2. The injection volume shall not exceed 10,000 barrels per day.

3. The maximum surface injection pressure shall not exceed 250 psig for fresh water injection and 175 psig for 10-pound brine injection.

4. Prior to beginning disposal operations in the cavern disposal system, the cavern capacity shall be determined by sonar survey or other Commission approved method.

5. The results of the sonar survey or other method shall be reported to the Commission's Austin office prior to beginning disposal.

6. Records relating to the disposal of oil and gas NORM waste shall be retained for at least three years after the date of disposal. The records shall include for each shipment disposed of:

   a. the identity of the generator of the oil and gas NORM waste.
   b. the identity of the property where the oil and gas NORM waste was generated, including the district, field, lease, unit, facility, or offshore tract.
   c. the physical nature of the NORM waste (i.e. pipe scale, contaminated soil, etc.)
   d. the volume of the NORM waste.
   e. the radioactivity level of the NORM waste in pCi/g of Radium-226 and Radium-228.

7. The permittee shall comply with the worker protection standards of Rule 94 (c).

8. A radiation safety officer (RSO) shall be on location during any activity that involves the retrieval of logging or workover tools, tubulars, or equipment from the well after NORM disposal begins.

9. Within one year after active disposal operations cease at the facility and prior to release of the facility for unrestricted use, the permitted shall decontaminate the land surface at the site and any equipment not otherwise exempted under the provisions of TAC § 289.259(d) (2). For purposes of this provision, the land surface shall be considered decontaminated when the levels of Radium 226 and Radium 228 do not exceed 5 pCi/g above background or do not exceed the level specified in Statewide Rule 94, whichever is greater. Equipment shall be considered decontaminated when it meets the exception levels set forth in § 289.259(w).

STANDARD CONDITIONS:

1. Injection must be through tubing set on a packer. The packer must be set no higher than 100 feet above the top of the permitted interval.

2. The District Office must be notified 48 hours prior to:
   a. running tubing and setting packer;
   b. beginning any workover or remedial operation;
   c. conducting any required pressure tests or surveys.

3. The wellhead must be equipped with a pressure observation valve on the tubing and for each annulus.

4. Prior to beginning injection and subsequently after any workover, an annulus pressure test must be performed. The test pressure must equal the maximum authorized injection pressure or 500 psig, whichever is less, but must be at least 200 psig. The test must be performed and the results submitted in accordance with the instructions of Form H-5.

5. The injection pressure and injection volume must be monitored at least monthly and reported annually on Form H-10 to the Commission's Austin office.

6. Within 30 days after completion, conversion to disposal, or any workover which results in a change in well completion, a new Form W-2 or G-1 must be filed in duplicate with the District Office to show the current completion status of the well. The date of the disposal well permit and the permit number must be included on the new Form W-2 or G-1.

7. Written notice of intent to transfer the permit to another operator must be submitted to the Commission at least 15 days prior to the date the transfer will occur by filing Form P-4.

8. Unless otherwise required by conditions of the permit, completion and operation of the well shall be in accordance with the information represented on the application (Form W-14).

9. The operator shall comply with financial security requirements of Statewide Rule 78.

10. The operator shall be responsible for complying with the following requirements so as to assure that discharges of oil and gas waste will not occur:

    a. All surface facilities for oil and gas waste management must be permitted under the requirements of Statewide Rule 8.

    b. A catch basin constructed of concrete, steel, or fiberglass must be installed to catch oil and gas waste which may spill as a result of connecting and disconnecting hoses or other apparatus while transferring oil and gas waste from tank trucks to the disposal facility.

    c. All fabricated waste storage and pretreatment facilities (tanks, separators, or flow lines) shall be constructed of steel, concrete, fiberglass, or other materials approved by the Director. These facilities must be maintained so as to prevent discharges of oil and gas waste.

    d. Dikes shall be placed around all waste storage, pretreatment, or disposal facilities. The dikes shall be designed so as to be able to contain a volume equal to the maximum holding capacity of all such facilities. Any liquids or wastes that do accumulate in the containment area shall be removed within 24 hours and disposed of in an authorized disposal facility.

    e. The facility shall have security to prevent unauthorized access. Access shall be secured by a 24-hour attendant, a fence and locked gate when unattended, or a key-controlled access system. For a facility without a 24-hour attendant, fencing shall be required unless terrain or vegetation prevents truck access except through entrances with lockable gates.

f. Each storage tank shall be equipped with a device (visual gauge or alarm) to alert drivers when each tank is within 130 barrels from being full.

11. Form P-18, Skim Oil Report, must be filed in duplicate with the District Office by the 15th day of the month following the month covered by the report.

Provided further that, should it be determined that such injection fluid is not confined to the approved strata, then the permission given herein is suspended and the disposal operation must be stopped until the fluid migration from such strata is eliminated.

APPROVED AND ISSUED ON July 27, 1999.

Richard F. Ginn, Deputy Assistant Director
for Underground Injection Control

(To be completed by the Commission)

Permit No. 3192 is hereby issued to LOTUS, L.L.C.
subject to the conditions below.

PERMIT CONDITIONS

A. This permit authority is limited to the hauling, handling, and disposal of oil and gas waste off a lease, unit, or other oil and gas property.

B. This permit authorizes the permitted hauler to dispose of oil and gas waste only at the following disposal/injection systems:

- Commission-permitted disposal/injection systems for which a Form WH-3 has been submitted and which are listed on Permit Attachment B, Approved Disposal/Injection Systems;
- disposal systems operated under authority of a minor permit issued by the Commission; and
- disposal systems permitted by another state agency or another state provided the Commission has granted separate authorization for the disposal.

C. Each vehicle must be marked on both sides and in the rear with the permitted hauler's name (exactly as shown on the P-5 organization report) and permit number in characters not less than three inches high.

D. This permit authorizes the permitted hauler to use only those vehicles shown on the Commission-issued listing of approved vehicles (Permit Attachment A, Waste Hauler Vehicle Identification).

E. Each vehicle must carry a copy of this permit along with a copy of those parts of Permit Attachment A (Waste Hauler Vehicle Identification) and Permit Attachment B (Approved Disposal/Injection Systems) that are relevant to that vehicle's activities.

F. Each vehicle must be operated and maintained in such a manner as to prevent spillage, leakage, or other escape of oil and gas waste during transportation.

G. The permitted hauler must make each vehicle available for inspection upon request by Commission personnel.

H. The permitted hauler must compile and keep current a list of all persons by whom the permitted hauler is hired to haul and dispose of oil and gas waste and furnish such list to the Commission upon request.

I. The permitted hauler must adequately train all drivers to ensure compliance with Commission rules, including recordkeeping requirements, and adherence to proper emergency response and notification procedures.

J. The permitted hauler must keep a DAILY record of the oil and gas waste hauling operations of each approved vehicle. The daily record, signed and dated by the vehicle driver, must be kept open for Commission inspection and must contain the following information:

1. Identity of the property from which the oil and gas waste is hauled (operator name, lease name and number or other facility name or number, and county);
2. Type and volume of oil and gas waste received by the hauler at the property where it was generated;
3. Identity of the disposal system to which the oil and gas waste is delivered (operator name, lease name and number or system name, well number or system permit number, and county); and
4. Type and volume of oil and gas waste transported and delivered to the disposal system.

K. This permit is not transferable without the consent of the Commission.

L. This permit expires on 03/31/2001. This permit, unless suspended or revoked for cause shown, will remain valid until the expiration date.

Director of Environmental Services

3/30/2000
Date of Permit Issuance

Glenda Babola
RRC Contact

(512) 463- 6818

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION - UIC
P.O. BOX 12967
AUSTIN, TX 78711-2967

OIL AND GAS WASTE HAULER
VEHICLE IDENTIFICATION

PERMIT ATTACHME

PAGE

Hauler Name	Permit Number	Expiration Date	Number o Vehicle
LOTUS, L.L.C.	3192	03/31/2001	1

Make / Model /Yr	Serial No.	Cap. / Unit	License	Inspect
INT'L / /86	1HTLAHEMOGHA19329	6 / YDS	CHO748	

A COPY OF THE PART OF THIS LISTING RELEVANT TO THAT VEHICLES ACTIVITIES MU
BE CARRIED IN EACH VEHICLE SUBJECT TO THIS PERMIT

RAILROAD COMMISSION OF TEXAS
OIL AND GAS DIVISION - UIC
P.O. BOX 12967
AUSTIN, TX 78711-2967

OIL AND GAS WASTE HAULER
APPROVED DISPOSAL/INJECTION SYSTEMS

PERMIT ATTACHM

PAGE

Hauler Name	Permit Number	Permit Date	Expiration Date	Distri Numbe
LOTUS, L.L.C.	3192	04/01/2000	03/31/2001	08

System Operator Name Lease Name	RRC ID	Well	County	Disposal	Proje
LOTUS, L. L. C. LOTUS	35507	1	ANDREWS	14-10799	

A COPY OF THE PART OF THIS LISTING RELEVANT TO THAT VEHICLES ACTIVITIES MU
BE CARRIED IN EACH VEHICLE SUBJECT TO THIS PERMIT

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

HAZARDOUS MATERIALS CERTIFICATE OF REGISTRATION FOR REGISTRATION YEAR 2000-2001

Registrant: FLUID TRANSPORT INC
Attn: Billy Smartt
PO Box 99
Snyder, TX 79550-0099

This certifies that the registrant is registered with the U.S. Department of Transportation as required by 49 CFR Part 107, Subpart G.

This certificate is issued under the authority of 49 U.S.C. 5108. It is unlawful to alter or falsify this document.

Reg. No: 053100 005 028I Issued: 06/05/00 Expires: 06/30/01

Record keeping Requirements for the Registration Program

The following must be maintained at the principal place of business for a period of three years from the date of issuance of this Certificate of Registration:

(1) A copy of the registration statement filed with RSPA; and
(2) This Certificate of Registration

Each person subject to the registration requirement must furnish that person's Certificate of Registration (or a copy) and all other records and information pertaining to the information contained in the registration statement to an authorized representative or special agent of the U. S. Department of Transportation upon request.

Each motor carrier (private or for-hire) and each vessel operator subject to the registration requirement must keep a copy of the current Certificate of Registration or another document bearing the registration number identified as the "U.S. DOT Hazmat Reg. No." in each truck and truck tractor or vessel (trailers and semi-trailers not included) used to transport hazardous materials subject to the registration requirement. The Certificate of Registration or document bearing the registration number must be made available, upon request, to enforcement personnel.

For information, contact the Hazardous Materials Registration Manager, DHM-60 Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, SW, Washington, DC 20590, telephone (202) 366-4109.

EPA

ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER → TXD982736744

FLUID TRKNG INC
HOLT DAVID PRES
PO BOX 99
SNYDER TX 79549

INSTALLATION ADDRESS →

111 N COLLEGE AVE
SNYDER TX 79549

EPA Form 8700-12A (4-80)

915-573-3963 Billy Sharpe 01:02P 20 01 10

U.S. EPA

CERCLA

Approval Letter

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

AUG 10 1998

Mr. Jerry Kelly
Regulatory Affairs Manager
Lotus L.L.C.
P.O. Box 1277
Andrews, TX 79714

Dear Mr. Kelly:

In response to your request of May 26, 1998, the U.S. Environmental Protection Agency (EPA) has determined that the Lotus L.L.C. facility in Andrews, Texas (EPA ID #TXR000019349) is acceptable for the receipt of hazardous substances, pollutants or contaminants (that are not Resource Conservation and Recovery Act hazardous waste) from Comprehensive Environmental Response, Compensation and Liability Act response actions.

This determination is made pursuant to the requirements prescribed in 40 CFR 300.440 (58 FR 49200, 49215 - 49218 September 22, 1993), and is based upon communication with representatives of the Railroad Commission of Texas. If conditions change, or if new information reveals violations exist, then the acceptability determination may be affected.

Please note that the Railroad Commission of Texas has requested that the Railroad Commission be provided notice of any transfer of CERCLA waste to the Lotus L.L.C. facility in Andrews, Texas. Notification should be provided to:

Ms. Leslie Savage, Assistant Director
Environmental Services
Railroad Commission of Texas
P.O. Box 12967
Austin, TX 78711

If you have any questions regarding this letter, please contact Ron Shannon of my staff at (214) 665-2282.

Sincerely yours,

Samuel Coleman, P.E.
Director
Compliance Assurance and
Enforcement Division

cc: Ms. Leslie Savage
Railroad Commission of Texas

Insurance

CERTIFICATE OF LIABILITY INSURANCE

LOTUS-1 12/13/00

PRODUCER

West Texas Insurance Exch, Inc
1000 Maple Avenue
Odessa TX 79761-2810

Jeffery F. Rea
Phone No 915-333-4106 Fax No 915-333-6803

INSURED

Lotus, LLC
P. O. Box 1277
Andrews TX 79714

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

COMPANIES AFFORDING COVERAGE

COMPANY A	Clarendon National
COMPANY B	Great Texas County Mutual
COMPANY C	American Interstate Ins. Co.
COMPANY D	Security of Hartford

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS MADE [X] OCCUR OWNER'S & CONTRACTOR'S PRO X SUDDEN/GRAD X POLLUTION	GLA1050099	01/29/00	01/29/01	GENERAL AGGREGATE PRODUCTS - COMP/OP AGG PERSONAL & ADV INJURY EACH OCCURRENCE FIRE DAMAGE (Any one fire) MED EXP (Any one person)	$2,000,000 $1,000,000 $1,000,000 $1,000,000 $ 50,00 $ 5,00
B	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS X MCS-90 X LEASED VEHICLES	TBA2290684	01/29/00	01/29/01	COMBINED SINGLE LIMIT BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE	$1,000,000 $ $ $
	GARAGE LIABILITY ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EACH ACCIDENT AGGREGATE	$ $ $
A	EXCESS LIABILITY X UMBRELLA FORM OTHER THAN UMBRELLA FORM	UMB1050029	01/29/00	01/29/01	EACH OCCURRENCE AGGREGATE	$4,000,000 $4,000,000 $
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE. [ ] INCL [X] EXCL	00WCTX146706	01/29/00	01/29/01	X WC STATUTORY LIMITS [ ] OTHER EL EACH ACCIDENT EL DISEASE - POLICY LIMIT EL DISEASE - EA EMPLOYEE	 $1,000,000 $1,000,000 $1,000,000
D	OTHER EQUIPMENT CARGO	CTPPG30458	01/29/00	01/29/01	LEASED LIMIT	100,000 100,000

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

BLANKET WAIVER OF SUB & ADD'L INSURED ON GL & AUTO IN FAVOR OF CERT HOLDER WHEN REQUIRED BY WRITTEN CONTRACT. BLANKET WAIVER OF SUB ALSO INCLUDED ON WC. MCS-90 FILING & BROADENED POLLUTION COVERAGE INCLUDED ON BUSINESS AUTO.

CERTIFICATE HOLDER

SAMPLEC

SAMPLE CERTIFICATE

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Jeffery F. Rea

Jeffery F. Rea

ACORD 25-S (1/95) - ACORD CORPORATION 19

Professional Staff

Dan Snow
General Manager

B.S. Mechanical Engineering
New Mexico State University

Petroleum Engineering
Amoco Production Company

20 Years Experience, Oil & Gas Industry

Jeff Hudson
Regulatory Affairs Manager
Corporate Radiation Safety Officer

Health, Environmental and Safety Coordinator
Union Oil Company of California

Instructor of OSHA Standards
U. S. Department of Labor

ASSE Member for 7 Years

Certified Industrial Hygiene Contact

14 Years Experience, Mining Industry

20 Years Experience, Oil & Gas Industry

Certificate of Completion

This certifies that

Jeff Hudson

has satisfactorily completed a forty hour

NORM Radiation Safety Officer

course of instruction

The course of instruction included both a written and practical examination.

Course Date: April 15 - 19, 1996 Location: Sugar Land, TX

Growth Resources, Inc.

Training Director

200A Burgess Drive · Lafayette · Louisiana · 70505-2844

LITHO. IN U.S.A.

Certificate of Qualification

This is to certify that

Jeffrey H. Hudson

has completed an approved, eight hour refresher training course as a

NORM Radiation Safety Officer

Certification Date: September 7, 2000

Location: Baton Rouge, Louisiana

Mark W. Krohn, RRPT

ARS
AMERICAN RADIATION
SERVICES, INC.

ARS
AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (225) 927-6822

September 7, 2000

Jeffrey H. Hudson
Lotus, L.L.C.
P.O. Box 1277
Andrews, TX 79714

Dear Mr. Hudson:

This letter is to inform you that you have successfully completed a NORM Radiation Safety Officer Refresher Course. Enclosed, please find the copies of the certificates and letters for the 8 Hour NORM Radiation Safety Officer Refresher Course on June 7, 2000. It is not necessary to send copies of these certificates or letters to the Texas Department of Health, Bureau of Radiation Control. However, copies should be kept in your training records should you ever be requested to show proof of training.

We are interested in your comments and questions. We would like to help you in any way. Please contact us at 1-800-401-4277 if you have any questions or need further assistance.

Sincerely,

Mark W. Krohn, RRPT
Health Physicist

ARS
AMERICAN RADIATION SERVICES, INC.

1726 Wooddale Court • Baton Rouge, Louisiana 70806
1 (800) 401-4277 • Fax (225) 927-6822

September 7, 2000

Texas Department of Health
Bureau of Radiation Control
1100 West 49th Street
Austin, TX 78756-3189

Dear Sir or Madam:

This letter is to certify that Jeffrey H. Hudson, has successfully completed a 8-Hour NORM Radiation Safety Officer Refresher Course. This course included, but was not limited to the following:

- Federal Regulations
- State Regulations
- Protective Clothing
- Radiation Survey Instrument Calibration Requirements
- Documentation Requirements
- Emergency Actions
- Radiation Protection Programs
- State Notification Requirements
- Disposal Options
- Respiratory Protection Requirements
- RSO Responsibilities
- Texas Regulations
- Exposure Risk to Unborn Child
- Exposure Minimization
- Type of Survey Instruments
- Radiation and Contamination Survey Techniques
- Personnel Monitoring
- Legal Responsibilities
- Waste Management Program
- Liability Prevention
- Shipping and Manifesting
- RSO Problems and Solutions

If you have any questions, or need assistance, please don't hesitate to call any of the ARS staff at 1-800-401-4277.

Sincerely,

Mark W. Krohn, RRPT
Health Physicist

Training

Minimum Training Requirements
LOTUS, L.L.C. Employee:

8 hr. NORM Surveyor

40 hr. HAZWOPER

Personal Protective Equipment

Personal Dosimetry

Respiratory Protection

ALARA Principles

Hazard Communication

Hearing Conservation

Injury/Accident Reporting

Drug/Alcohol Policy and Testing

Hydrogen Sulfide Safety

Confined Space Entry

Radiation Protection

First-Aid / CPR

Lock-Out / Tag-Out

Clientele

ALTURA ENERGY

EXXON COMPANY, USA

HUNT OIL COMPANY

ICO WORLDWIDE, INC.

J.M. HUBER CORPORATION

LOUIS - DREYFUSS

NATIONAL TANK COMPANY

OCEAN ENERGY (UMC PETROLEUM CORP.)

ORYX ENERGY

OXY, USA

PERMIAN - SCURLOCK

PIONEER NATURAL RESOURCES

PHILLIPS PIPELINE COMPANY

STATE OF NEW MEXICO

TITAN RESOURCES, INC.

UNOCAL / SPIRIT ENERGY 76

U.S. ENVIRONMENTAL PROTECTION AGENCY

Safety & Environmental Solutions, Inc.

Services

Hazardous Waste Operations and Emergency Response Training

- 8, 24 and 40 hour hazardous waste operations training
- Hazardous materials technician
- On-scene Incident Commander

Hazardous Material/Hazardous Waste Management

- Lead based paint abatement programs
- Underground storage tank removal, investigation, and remediation
- Hazardous waste regulatory compliance seminars (EPA and OSHA)
- Chemical safety and waste minimization seminars
- Household hazardous waste seminars

Safety, Environmental and Health Training

- Hazard communication standard compliance seminars for employers
- Worker right-to-know training
- Safety training designed to meet OSHA regulations and your specifications
- Safety meetings - a group presentation using video and/or other aids or small group discussions and demos to deal with knowledge gaps
- Training sessions - a combination of very specific, in-depth programmed instruction, demonstrations, and hands on practice
- EPA training for industry-related EPA regulations
- DOT training for all industry requirements

Naturally Occurring Radioactive Materials (NORM)

- NORM Surveys and Consultation
- NORM Cleanup, Handling, Packaging, and Storage
- Licensed in New Mexico (# N0333-00) and Texas (reciprocal license)
- Licensed NORM training for all employees and contractors

Waste Minimization Programs

- Hazardous Waste
- Solid Waste
- Recycling

REFERENCES

Mr. Tom Scott
HES Coordinator
Occidental Permian Ltd.
P.O. Box 50250
Odessa, Texas 79710
(915) 685-5677

Mr. David Carrillo
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BP
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Midland, Texas 79702
(915) 688-5239

Mr. Bruce Hancock
Human Resource/HSE Coordinator
Halliburton Energy Services
400 North Big Spring Suite 4000
Midland, Texas 79701
(800) 844-8451

Mr. Rick Massey
NM E S & H Coordinator
Chevron USA
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(505) 394-3133

Mr. Darrell Moore
Environmental Manager for Water & Waste
Navajo Refining Company
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Mr. Ray Ramsey
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P.O. Box 2040
Hobbs, New Mexico 88241
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Mr. Hollis Wolfenbarger
President
Banta Oilfield Services, Inc.
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Mr. Jim Townsend
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Mr. David Urbanski
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(713) 296-7555

Mr. Bob Patterson
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2625 W. Marland
Hobbs, New Mexico 88240
(505) 393-9171

QUALIFICATIONS AND CREDENTIALS
James R. (Bob) Allen CHMM, REM, CET, CES

Qualifications Summary

James R. (Bob) Allen is a Safety and Environmental Professional with more than 15 years of experience relating to occupational safety and health, hazardous materials, and environmental cleanup and 13 years of experience in finance and management industries.

Mr. Allen was a successful bank president, management and safety consultant prior to joining Safety & Environmental Solutions, Inc. Mr. Allen continually draws from his finance, management, and regulatory compliance experience in his current position as President of SES, Inc. He is also a past member of the Critical Operations and the Confined Space Rescue teams while at Callaway Safety. Mr. Allen is responsible for the development and implementation of safety and environmental programs for a wide variety of industries such as oil & gas production, petrochemical, and refineries. Mr. Allen has delivered a broad curriculum of safety and environmental training for industrial clients as well as serving as an adjunct professor at New Mexico Junior College, Hobbs, New Mexico.

Education

B.B.A., New Mexico State University, Las Cruces, New Mexico

Registrations and Affiliations

- Certified Hazardous Materials Manager, Master Level CHMM #10551 – *Institute of Hazardous Materials Management*
- Registered Environmental Manager REM #7773 - *National Registry of Environmental Professionals*
- Certified Environmental Trainer #94-209 in Occupational Safety and Health and Management and Transportation of Hazardous Materials and Waste -*Natl. Environmental Training Association*
- Registered Environmental Professional, *Texas Registry of Environmental Professionals* - #611
- Certified Environmental Compliance Manager - *Columbia Southern University*
- Certified Environmental Specialist #10583 - *Environmental Assessment Association*
- Professional Member, *American Society of Safety Engineers (ASSE)*
- Past Chairman, SE New Mexico Section, Permian Basin Chapter, *ASSE*
- Member, *International Registry of Environmental Engineers and Compliance Professionals*
- Past Member, Board of Directors, *West Texas Safety Training Center*
- Instructor, Medic First Aid (Basic) - International Registry # 17942, *EMP America*
- Instructor, Medic First Aid (BLS/PRO) - International Registry # 17942, *EMP America*
- Corporate Representative, *National Fire Protection Association*
- Corporate Representative, *Association of Energy Service Contractors*
- Incident Commander, 29 CFR 1910.120
- Licensed Radiation Safety Consultant, *State of New Mexico* #398-6
- Defensive Driving Instructor #45671 - *National Safety Council*
- Judge, International Intercollegiate Environmental Design Contest 2000, *Waste Education Research Consortium (WERC)*

QUALIFICATIONS AND CREDENTIALS
OF
David G. Boyer, P.G.

Qualifications Summary

David G. Boyer is a Professional Geologist specializing in Hydrology and Water Resources with more than 25 years experience working in New Mexico and Arizona.

Mr. Boyer has enjoyed a successful career as a Hydrogeologist both in the public and private sectors. Mr. Boyer served as a research and teaching assistant and Hydrologist for the University of Arizona for eight years. After completion of his Master's Degree in 1978, Mr. Boyer joined the New Mexico Environment Department as a Water Resources Specialist in Hydrogeology. Mr. Boyer founded the Environmental Bureau of the New Mexico Oil Conservation Division in 1984 and served as Bureau Chief until 1991. Mr. Boyer returned to the private sector in 1991 and has held senior positions with K.W. Brown Environmental Services, RE/SPEC Inc., Los Alamos Technical Associates, Inc., and Covenant Technical Associates, Inc.

Mr. Boyer broadens SESI's areas of expertise to include: Hydrological Investigation and Characterization, Groundwater Quality Monitoring and Evaluation, Permitting and Compliance Actions for State and Federal Groundwater Protection Programs, Regulatory Development, Analysis, and Negotiation, and Expert Witness and Litigation Support in the area of Groundwater and Water Resources.

Education

M.S. in Hydrology and Water Resources (Groundwater), University of Arizona, Tucson, AZ. (1978)
B.S. in Hydrology and Water Resources, University of Arizona, Tucson, AZ. (1965)

Registrations and Affiliations

American Institute of Hydrology (Certification # 85-535)
Association of Groundwater Scientists and Engineers (CGWP #221)
Registered Professional Geologist (Wyoming, PG-2390)
Gas Research Institute, Research Coordination Council: Chairman, Environment & Safety Panel (1994 -99)
Association of Groundwater Scientists and Engineers
New Mexico Oil & Gas Association (1991-97)
Permian Basin Petroleum Association (1991-96)
Texas Independent Producers & Royalty Association (1991-96)
Member, New Mexico Water Quality Control Commission (1986-91)