

~8,485



ADVANCED ASSESSMENT AND REMEDATION SERVICES (AARS)

5016 GLOUCESTER LANE, MARTINEZ, CA 94553
TEL: 510-370-8295 FAX: 510-370-8295

July 19, 1995

Ms. Lynn Nightingale
250 Executive Park Blvd.
Suite 3100
San Francisco, California 94134

| | |
|-----------------------------|---|
| To: <i>LYNN NIGHTINGALE</i> | From: Tridib Guha |
| Co.: | Co.: Advanced Assessment & Remediation Services |
| Phone: <i>415-468-4900</i> | Phone: (510) 370-8295 |
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| # of pages: 15. Note: | |

**Subject: Proposal for Groundwater Quality Investigation
at
4629 Martin Luther King, Jr. Way
Oakland, California**

Dear Ms. Nightingale:

Advanced Assessment and Remediation Services (AARS) is pleased to submit this proposal for groundwater quality investigation activities at 4629 Martin Luther King, Jr. Way, Oakland, California. This proposal is based on my telephone conversation with Ms. Eva Chu, Alameda County Environmental Health Department (ACEHD) on July 18, 1995. The proposed scope of work will be conducted in accordance with the guidelines and requirements of the ACEHD and the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB).

As discussed with Ms. Chu, the scope of work is to collect and analyze groundwater samples at the site using one monitoring well and three temporary wells. The depth of groundwater was assumed approximately 15 feet below ground surface (bgs). The total number of soil samples to be analyzed is also minimized, one per boring.

The total estimated budget to conduct this groundwater quality investigation as proposed is approximately \$8,485. An estimated budget detailing each task is presented in Attachment A. The budget will not be exceeded without prior authorization by you. Actual billing will be on a time and material basis in accordance with AARS's current pricing schedule. Also enclosed in Attachment B is our proposal for four quarterly monitoring and sampling and reporting.

Enclosed for your review is a draft work plan. Please feel free to discuss the contents of the work plan with the ACEHD.

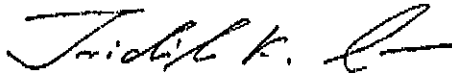
AARS is one of the best in the industry for site assessment to site closure, and completing projects within time and budget (abstracts of selected publications enclosed). Also enclosed is the certificate of insurance coverage for \$1,000,000 in commercial general liability and \$1,000,000 in professional liability.

Ms. L. Nightingale
July 19, 1995
Page 2

If this proposal is acceptable to you and you wish to authorize us to proceed with the scope of work, then we will proceed with the Standard Service Agreement. Please contact me if you have any questions or need additional information.

Sincerely,

Advanced Assessment and Remediation Services



Tridib K. Guha, R.G., R.E.A.
Principal

Enclosures

TG/NIGHTINGALE.GW/enclosure

**PROPOSED SCOPE OF WORK
FOR
GROUNDWATER QUALITY INVESTIGATION
at
4629 Martin Luther King, Jr. Way
Oakland, California**

1.0 INTRODUCTION

This proposal presents the scope of work to conduct a groundwater quality investigation at 4629 Martin Luther King, Jr. Way, Oakland, California. The proposed scope of work is based on previous analytical results of soil sampling conducted during tank removal. Analytical results of the soil samples from the tank cavities detected high concentrations of total extractable hydrocarbons (TEH) and oil and grease (O&G). However, all samples analyzed for total lead were below the background level. The proposed investigative work is designed to evaluate the extent of the subsurface contamination and whether hydrocarbon constituents and soluble lead have impacted the groundwater at the site.

2.0 PROJECT BACKGROUND

In July 1992, five underground storage tanks (previously two tanks stored gasoline and three stored fuel oil) were excavated and removed by SEMCO Inc.. Soil samples were collected from excavations. Analytical results indicated that petroleum hydrocarbons, quantified as diesel and oil & grease, were present in the soil below the fuel tanks. Additionally, toluene, ethylbenzene and xylenes were detected at low concentrations in the soil. Petroleum hydrocarbons and benzene, toluene, ethylbenzene and xylenes (BTEX) were not detected in samples obtained from the gasoline tank excavations at concentrations above the reporting limits.

In May 1993, SCI conducted site investigation by drilling and sampling of nine soil borings and analyzing selected soil samples. SCI reported oil and grease and diesel hydrocarbons were detected in the soil beneath and adjacent to the previous fuel oil tanks, at concentrations up to 760 and 1700 mg/kg, respectively.

3.0 PROPOSED SCOPE OF WORK

The proposed site investigation will be conducted in accordance with the requirements and guidelines of Alameda County Environmental Health (ACEHD) and California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB). As discussed with ACEHD, AARS proposes:

1. Installation of one soil boring to 30 feet bgs, downgradient to Boring #3. Convert this soil boring into a groundwater monitoring well (MW-1).

2. Drill three additional shallow (20 feet bgs) soil borings and convert them into temporary wells (TW-1, TW-2 and TW-3) to collect groundwater grab samples.

The locations of the monitoring well and temporary wells are presented in Figure 1. Collect soil samples during drilling at every 5 feet intervals or at lithologic changes. Analyze selected soil samples for total petroleum hydrocarbon as diesel (TPHd) as gasoline (TPHg) with BTEX, and O&G. Upon collection of groundwater grab samples the temporary wells will be removed and backfilled with cement slurry. The various tasks associated with this site investigation are discussed below.

Task 1: Project Preparation, Submit Work Plan and Acquire Necessary Permits

Information pertinent to the site will be reviewed and will include available literature, previous field work and other sources. A workplan will be prepared, including a health and safety plan, and will be submitted to the ACEHD, as well as Ms. Nightingale. All required permits will be obtained and field activities will be coordinated with the Hazardous Materials Division of the ACEHD. Site will be marked and Underground Service Alert will be notified prior to drilling of soil borings.

Task 2: Drill Soil Borings; Install one Monitoring Well and three Temporary Wells

One soil boring (MW-1) will be drilled to 30 feet bgs by using a truck mounted CME 55 or 75 drilling rig with 8-inch-diameter, hollow-stem augers, following the standard procedures and requirements of the ACEHD. Three additional soil borings (TW-1, TW-2 and TW-3) will be drilled to 20 feet bgs using small diameter (4.5-inch) hollow stem augers. Soil samples will be obtained with a split-spoon sampler lined with clean sampling sleeves. Soil samples will be collected at every 5 feet or at any lithologic changes, starting at 5 feet bgs. Soil borings will be logged lithologically using the Unified Soil Classification System (USCS) and soil samples will be screened in the field using a portable combustible gas indicator. The samples recovered for chemical analysis will be sealed with teflon tape and plastic caps and placed immediately into a cooler with ice and transported to a certified laboratory under chain-of-custody. If groundwater is not encountered within the specified depth described above then the soil borings will be backfilled with neat cement or cement slurry.

One soil boring will be converted to groundwater monitoring well. The groundwater well will be constructed of clean, 2-inch diameter, flush threaded, schedule 40 PVC blank casing which will be extended from grade level to a depth estimated at the highest anticipated water level, and 2-inch-diameter screened casing with 0.010-inch perforations, extending to a depth of at least 10 feet into the water table. The annular space surrounding the screened portion was backfilled with No. 2 Monterey sand (filter pack) to approximately 2 feet above the top of the screened section. A bentonite annular seal (approximately 1 foot thick) will be placed above the filter

Can this be used inside bldg?

pack. The remaining annulus will be grouted with neat cement to the surface. A monument well box will be installed slightly above grade to minimize infiltration of surface waters. Locking watertight well caps will be installed to ensure the integrity of the well.

Three soil borings will be converted to temporary wells. The soil borings will be advanced 3 to 5 feet beyond the top of the saturated zone (approximately 15 feet bgs). A 2-inch diameter, flush-threaded, Schedule 40 PVC 0.010-inch slot size screen casing covered with a polyester filter sock (if available) will be installed in the bore holes. The water will be allowed to stabilize and a small volume of water (approximately 3 to 5 gallons) will be purged. Following purging, a water sample will be collected and the casing will be removed. The borings will then be completely backfilled with neat cement or cement slurry to grade.

All drill cuttings will be stockpiled at the site for proper disposal.

Task 3: Develop and Sample Monitoring Well

Prior to sampling, the water level of the well will be recorded, and the presence of free product or sheen will be observed. The well will be properly developed prior to purging and sampling.

During purging, pH, temperature, and conductivity readings will be recorded. As these readings stabilize, indicating that the groundwater is representative of the water in the aquifer, the water samples will be collected in appropriate clean glassware. The samples will be placed in an iced cooler and transported to a California-certified laboratory.

The removed water will be transferred to 55-gallon drums, labeled and stored at the site for proper disposal.

Task 4: Analyze Soil Samples

Soil samples will be transported to McCampbell Analytical in Pacheco, a California-certified laboratory for analysis following proper chain of custody procedures. A minimum of 1 soil sample (capillary zone) from each boring will be analyzed for TPHd, TPHg with BTEX and O&G using the appropriate EPA methods. The detection limits for both TPHd and TPHg is 1.0 milligram per kilogram (mg/kg) and the detection limits for BTEX are 0.005 mg/kg. The detection limit for O&G is 10.0 mg/kg.

Task 5: Analyze Water samples

Groundwater samples collected from the monitoring well and temporary wells will be analyzed for TPHd, TPHg with BTEX distinction, O&G and total lead, using the

appropriate EPA methods. The detection limits for TPHd and TPHg is 50 microgram per liter ($\mu\text{g/L}$) and the detection limits for BTEX are 0.5 $\mu\text{g/L}$. The detection limit for O&G is 1.0 mg/L and detection limit for lead is 0.005 mg/L.

Task 6: Analyze Data and Laboratory Results and Prepare Report

Upon completion of the sample analysis and background research, a detailed evaluation of results and available information will be conducted to assess the extent and nature of groundwater contamination. This will include:

- Interpretation of geologic and hydrogeologic information.
- Description of field and analytical procedures.
- Tabulation of soil and groundwater analytical results.
- A report presenting the findings of the investigation including conclusions and recommendations, will be prepared for submission to the ACEHD.

ATTACHMENT A

**GROUNDWATER QUALITY INVESTIGATION
PROPOSED SCOPE OF WORK
AND
COST ESTIMATE**

ESTIMATED BUDGET**GROUNWATER QUALITY INVESTIGATION**

**4629 Martin Luther King, Jr. Way
Oakland, California**

| Tasks | Estimated Cost |
|--|----------------|
| 1. Prepare Work Plan and health and safety plan; obtain permits; Site marking, Project Preparation | \$ 900 |
| 2. Drill 4 soil borings; install 1 monitoring well (30 feet bgs) and 3 temporary wells (each 20 feet bgs)- includes geologist time, all field equipments, subcontractor/supplies | \$ 3,360 |
| 3. Develop and sample monitoring well-includes geologist time and equipments | \$ 575 |
| 4. Lab. Analysis 4 soil samples TPHd, TPHg with BTEX & O&G | \$ 640 |
| 5. Lab Analysis 4 water Samples TPHd, TPHg w/ith BTEX, O&G and total lead | \$ 760 |
| 6. Review Data and Laboratory Results and Prepare Report Project Administration | \$ 2,250 |
| Total Estimated Cost | \$8,485 |

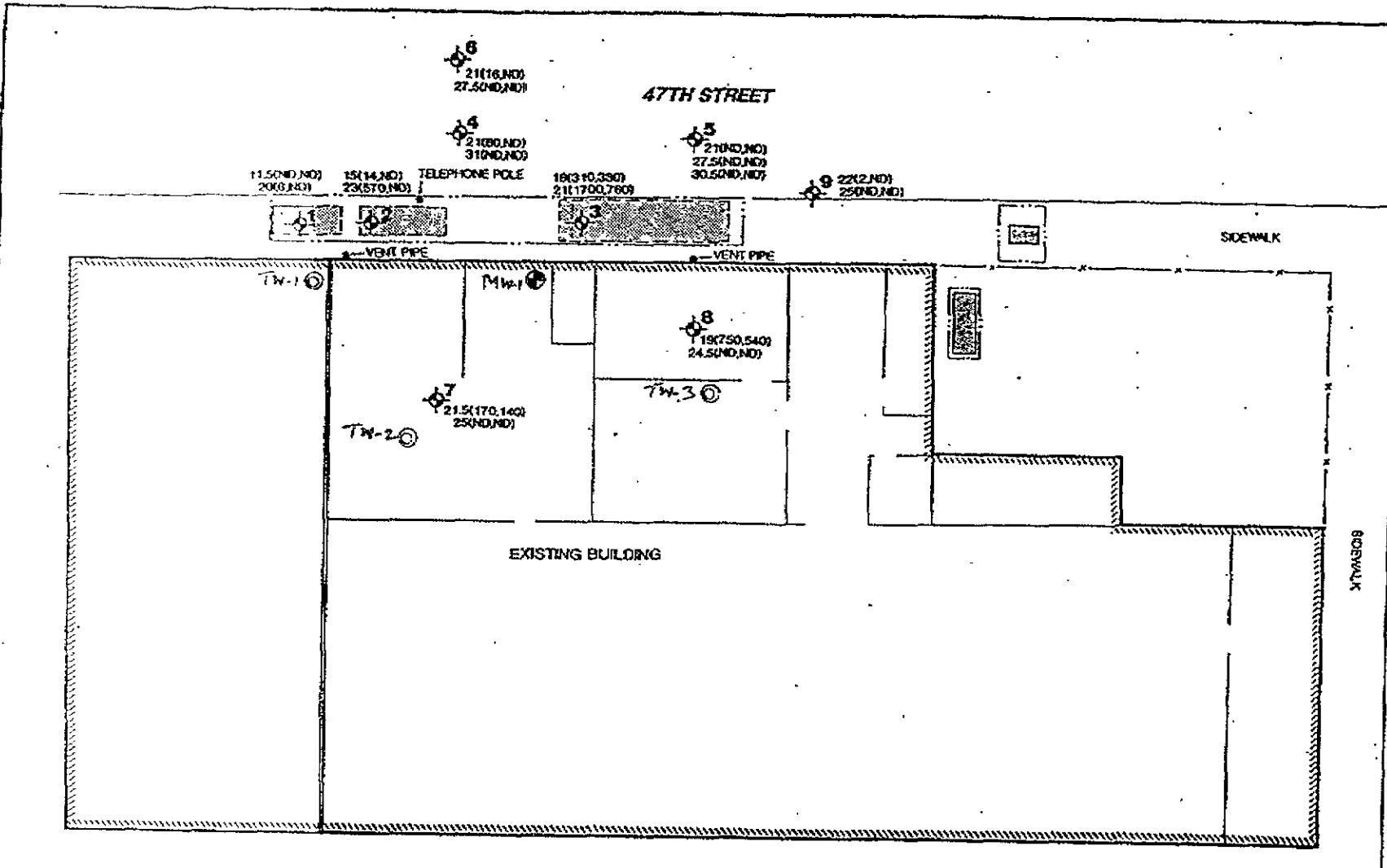
Note: Disposal of drill cuttings, soil materials and decon water not included in this estimate.
Costs for this disposal can be provided once analytical data is available.

ATTACHMENT B**ESTIMATED BUDGET****QUARTERLY GROUNDWATER MONITORING AND SAMPLING**

**4629 Martin Luther King, Jr. Way
Oakland, California**

| Tasks | Estimated Cost |
|---|----------------|
| 1. Water Level Measurement (includes equipments) | \$ 50 |
| 2. Well purging and sampling (includes equipments) | \$ 250 |
| 3. Lab Analysis 4 water Samples TPHd, TPHg with BTEX, O&G and total lead | \$ 200 |
| 6. Review Data and Laboratory Results and Prepare Report and submittal Project Administration | \$ 200 |
| Total Estimated Cost Per Quarter | \$700 |

Note: Disposal of purged water not included in this estimate. Costs for this disposal can be provided once analytical data is available.



TEST BORING
 APPROXIMATE LOCATION OF PREVIOUS HEATING OIL FUEL TANKS
 APPROXIMATE LOCATION OF PREVIOUS GASOLINE TANK
 EXTENT OF TANK EXCAVATION

21 (N, 150) - OIL & GREASE CONCENTRATION (mg/kg)
 TSM AS DIESEL CONCENTRATION (mg/kg)
 SAMPLE DEPTH (feet)

NO - NOT DETECTED
 TW-2 TEMPORARY WELL
 MW-1 MONITORING WELL

APPROXIMATE SCALE (feet)

SOURCE:
 Subsurface Consultants

| | | |
|---|---------|-----------|
| Figure 1 SITE PLAN | | PLATE |
| 4529 MARTIN LUTHER KING JR. WAY - OAKLAND | | 1 |
| JOB NUMBER | DATE | APPROVED |
| 827.001 | 5/19/93 | <i>ML</i> |

ACORD CERTIFICATE OF INSURANCE

ISSUE DATE (MM/DD/YY)

6/14/1995

PRODUCER
 Env. Eng. & Ins. Svcs.
 1750 Creekside Oaks, Ste 100
 Sacramento Ca. 95833
 (916) 649-4675

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 LETTER **A** ACCEPTANCE INSURANCE COMPANY
- COMPANY LETTER **B**
- COMPANY LETTER **C**
- COMPANY LETTER **D**
- COMPANY LETTER **E**

INSURED
 ADVANCED ASSESSMENT &
 REMEDIATION SERVICES
 5016 GLOUCESTER LANE
 MARTINEZ, CA 94553

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 | EC262471 | 05/08/95 | 05/08/96 | GENERAL AGGREGATE \$ 1,000,00 |
| | <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input checked="" type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR. OWNERS & CONTRACTORS PROT. | | | | PRODUCTS-COMP/OP AGG. \$ 1,000,00 PERSONAL & ADV. INJURY \$ 1,000,00 EACH OCCURRENCE \$ 1,000,00 FIRE DAMAGE (Any one fire) \$ 50,00 MED. EXPENSE (Any one person) \$ 5,00 |
| | AUTOMOBILE LIABILITY | | | | COMBINED SINGLE LIMIT \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE \$ |
| | EXCESS LIABILITY | | | | EACH OCCURRENCE \$ AGGREGATE \$ |
| | WORKER'S COMPENSATION AND EMPLOYERS LIABILITY | | | | STATUTORY LIMITS EACH ACCIDENT \$ DISEASE - POLICY LIMIT \$ DISEASE - EACH EMPLOYEE \$ |
| A | OTHER PROFESSIONAL LIABILITY | EC262471 | 05/08/95 | 05/08/96 | 1,000,00 |

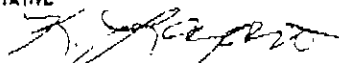
DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS
 ALL CALIFORNIA OPERATIONS

CERTIFICATE HOLDER

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



CITY of MARTINEZ BUSINESS LICENSE**1995**

NUMBER: 05913

THIS LICENSE IS ISSUED WITHOUT VERIFICATION
THAT THE LICENSEE IS SUBJECT TO OR EXEMPT
FROM LICENSING BY THE STATE OF CALIFORNIA

BUSINESS NAME
ADVANCED ASSESSMENT & REMEDIATION
LOCATION
5016 GLOUCESTER LN
ACTIVITY
PROFESSIONAL/CONSULTING

PLEASE POST IN
A CONSPICUOUS
PLACE

M: 01398

MAILING ADDRESS
ADVANCED ASSESS. & REMEDIATION

NOT TRANSFERABLE

5016 GLOUCESTER LANE
MARTINEZ CA 94553

| DATE PAID | | | EXPIRATION DATE | | |
|-----------|----|----|-----------------|----|----|
| 12 | 21 | 94 | 12 | 31 | 95 |



STATE OF CALIFORNIA



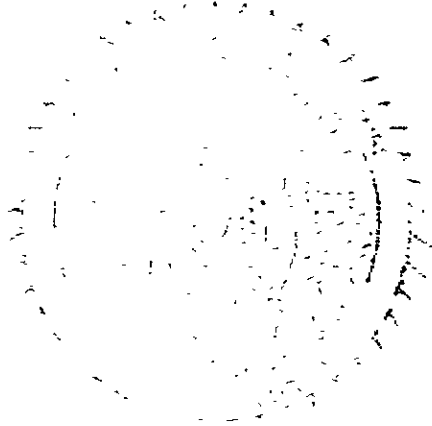
State Board of Registration for Geologists and Geophysicists

CERTIFICATE
IT IS HEREBY CERTIFIED THAT

TRIDIB KUMAR GUHA

IS A DULY
REGISTERED GEOLOGIST

Certificate No. 5836



STATE BOARD OF REGISTRATION FOR
GEOLOGISTS AND GEOPHYSICISTS

By

[Signature]

President

[Signature]

Executive Officer

This 1st day of March, 1994