NM1 - 10

GENERAL CORRESPONDENCE

YEAR(S): 1992



TIERRA

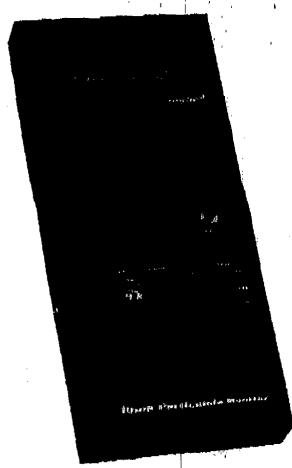
Environmental Company, Inc. 909 West Apache Farmington, New Mexico 87401

TELECOPIER TRANSMITTAL

DATE: 12/8/92
COMPANY: OCD
ATTENTION: Kathy Brown
FAX NO: 1-827-574/
No. of PAGES (including this page)
FROM: Phil Nobis
IF QUESTIONS CALL 1-505-325-0924
⟨→ COMMENTS /→
KAthe Will this work for
KAthy will this work for a particulate device?
Perl
FAX. NO. 1-505-327-1471

TO: JACKIE

When Your Employees' Health is on the Line, Make Sure HAZ-DUSTTM is on the Job!



HAZ-DUST is a Real Time Dust Monitor Specifically Designed for Industrial Hygiene and Hazardous Waste Site Investigations

HAZ-DUST uses the latest in infrared technology which provides accurate and instantaneous date on airborne particle concentrations, in accordance with response method #600.

HAZ-DUST saves money by climinating repetitious and costly gravimentic air sampling and the associated time delays involved with laboratory analysis.

With HAZ-DUST your results are determined easily and immediately.

By continuously monitoring lung damaging particles HAZ-DUST protects the health of industrial personnel and reduces any potential liabilities, in addition to reducing the cost of your attractioning the cost of your

If your company is in the business of industrial hygiene or environmental semediation, essavation and consultation, then HAZ-DUST will help you comply with federal tegrilations for respiratory safety.

APPLICATIONS:

Determining level or respiratory protection for on site personnel

Quantifying off site

Surveying for PM-10 and TSP levels

Monitoring dust generation during drilling/excavation Operations

Evaluating dust suppression and engineering controls

Locating and identifying "Hot Spots"

PARA Title III fugidue emissions compliance

Evaluating worker exposure to airborne contaminants

Can be used for all porsonal and ambient particulate air ramping applications

#8 14:41 Hott Terr

710657662

P.02

...setting new standards in respiratory monitoring

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Tum the instrument on and your results are immediately calculated.

High Sensitivity
Sensitive enough to monitor all
OSHA/NIOSH reference
methods. Sensitivity down to
0.01mg/m³

Alarm Pre-Set
user selectable alarm threshold
provides an audible warning
signal which ensures
OSHA/EPA requirements are
being met.

Low Battery Indicator Alons the user when the batteries need recharging so the unit is ready when you are.

Analog Output
Allows data to be transferred
directly to any logging device
so statistical reports can be
generated.

Light weight case is able to withstand harsh environments and rough handling. A unique design provides protection against RF waves (emitted from radios, transmitters ect.) which effects the precision of many measuring devices.

SPECIFICATIONS

mg/m³ concentration reading
Sensing range:0.01-100 µg/m³
Particle size range:0.01-50µm
Precision:+/-0.02mg/m³
Puwer: NiCd rechargeable
battery
Operating time:>8hrs on fully
charged battery
Charging time:10-12 hours
Signal output: 0-1 voit
Operating temp.:32-120 op
Humidity: 95% non-condensing
Dimensions: 9"A4"A2"
Weight: 3 lbs

STATE OF NEW MEXICO



MEMORANDUM OF MEETING OR CONVERSATION

7elephone	Personal	Time 8:50 /	7.m	Date 12/0/52
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HYNES, HALE, STHROWER

THOMAS I HYNES * J. KEVIN HALE * LARRY T. THROWER

1000 West Apache

Farmington, New Mexica 27401

OFF:: 505/325-8813 FAX: 505/326-6177

FAX COVER BREET
TO: Mike Stogner OCD
DATE: 10-30-92 FAX #: 827-5741
FROM: Sevin Hale
RE: Sierra Environnental
PAGES TRANSMITTED INCLUDING COVER SHEET
MESSAGE:)
The request of Sob Stovale this
date.

THIS MESSAGE IS INDENDED ONLY FOR THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION WHICH IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone, and return the original message to us at the above address via the U.S. Postal Service. Thank you.

IF YOU NOT RECEIVE ALL OF THE PAGES SHOWN ABOVE, PLEASE CALL
AT (505) 325-8813 IMMEDIATELY.



PERMIT FOR LANDFARM FACILITY

CTATE 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. ORDER NO.

APPLICATION OF TIERRA ENVIRONMENTAL COMPANY, INC. FOR PERMISSION TO OPERATE A LANDFARM, FOR THE REMEDIATION OF NON-HAZARDOUS OIL FIELD WASTES:

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on Mexico, before Examiner M	t 8:15 am on September 2, 1992 at Santa Fe, igner.	New
	1992, the Division director, having considered at the Examiner, and being fully advise	
these premises,		

- Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- Section 70-2-12 B (15), authorizes the Oil Conservation Division and Commission to regulate the disposition of non-domestic wastes resulting from the exploration, development, production or storage of crude oil or natural gas to protect public health and the environment.
- That Tierra Environmental Company, Inc. has applied to the Division pursuant to OCD Rule 711 for permission to operate a landfarm facility for the remediation of nonhazardous hydrocarbon contaminated soils using an enhanced biodegradation process. Said area is to be located in NW/4, SE/4 (Unit J) of Section 2, Township 29, Range 12 West, which is approximately six (6)(miles east of the City of Farmington, New Mexico. This application has been administratively determined to be approveable.

- (4) That Mr. Arthur Bichan and Mr. and Mrs. Glen Vavera, adjacent landowners to the proposed landfarm facility have with in the required time frame and according to OCD rules filed written protests and the necessary pre-hearing statements, objecting to proper notice and to possible emissions from the landfarm operation from hydrocarbon vapors as well as contaminated particulate emission as a result of wind action, which could cause a threat to health, safety and to the environment. Mr. Bichan presented testimony describing wind currents and natural erosion, suggesting to the Hearing Officer and to Tierra that the addition of sufficient moisture to the landfarm facility would reduce the threat of emission from both hydrocarbon vapore as well as contaminated particulate matter. He further testified that specialized tilling techniques should be implemented at the landfarm to further reduce natural wind erosion.
- That Tierra Environmental Company, President Richard Cheney PE/PS presented testimony that the addition of moisture if allowed by the division would reduce the threat of emission as well as enhance the natural bio-degradation of contaminants treated at the landfarm facility. He further testified that special soil tilling procedures at the facility would further reduce natural wind erosion.
- That following testimony by Mr. Cheney and Mr. Bichan, Mr. and Mrs. Vavera withdrew their complaint regarding proper notice under OCD Rule 711.
- That following inquires by Mr. Bichan, the Examiner, Mr. Stogner and by OCD Council Mr. Stovel, and Tierra Council Kevin Hale, all parties agreed that the addition of moisture to the landfarm facility, the construction of a sheep wire fence, the special tilling practices and some form of air quality monitoring be implemented.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Tierra Environmental Company, Inc. is hereby authorized to construct and operate a landfarm facility at the site in the NW/4, SE/4, Section 2, Township 29, Range 12 West NMPM, San Juan County, New Mexico for the purpose of treating and remediating non-hazardous hydrocarbon contaminated soils using an enhanced bio-degradation process.

PROVIDED HOWEVER THAT, the proposed landfarm shall be constructed in accordance with the engineering plat and topographic map presented as evidence in this case and part of Exhibit 1 "The OCD file" containing the original application and subsequent correspondence 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 a manner as to preclude spills, fires, limit emissions and protect persons, livestock and the environment. Required fencing shall be changed from four (4) strand barbed wire to Sheep wire and barbed wire in accordance with the New Mexico Highway Department specifications for highway fencing.

PROVIDED FURTHER THAT,

- prior to initiating operations, the facility shall be inspected by a representative of the (1) Aztec District Office in order to determine the adequacy of fences, gates and cattle guards necessary to preclude livestock and unauthorized persons from entering and / or utilizing said facility, and also to determine the adequacy of dikes and berms to assure safe facility operation.
- All contaminated soils received at the facility will be spread and disked within 72 hours (2) of receipt.
- Soils will be spread on the surface in six inch lifts or less. (3)
- Soils will be tilled a minimum of on time every two weeks (bi-weekly) to enhance (4) biodegradation of contaminants. The prevailing winds at the site are from 225 degrees True North, according to a 1981 National Weather Service Survey entitled "Crouch Mesa Airport Study". Methods suggested by the U.S. Soil Conservation Service will be utilized in the tilling of the soils which will reduce to the most possible degree the occurrence of natural wind erosion.
- Moisture shall be added to all contaminated soils received at the facility. All soils (5) received at the facility will be characterized using the Soil Survey of San Juan County New Mexico, prepared by the United States Department of Agriculture, Soil Conservation Service, for the purpose of pre-determining amounts of moisture added to the particular soils, to (1) enhance natural and artificial bio-degradation and (2) to prevent emissions from volatile organic compounds and to suppress erosion of contaminated soils from natural wind action. Water shall not be added to the degree that it creates standing pools or runoff from the facility or will maintain downward migration of contaminants into the native soil and/or groundwater.
- Successive lifts of contaminated soils will not be spread until a laboratory measurement (6) of Total Petroleum Hydrocarbons (TPII) in the previous lift is less than 100 parts per million (ppm), and the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations will be maintained at the facility. Authorization from OCD will be obtained prior to the application of successive lifts.
- Only solids which are RCRA Subtitle C exempt or by characteristic testing will be accepted at the facility. Solids from operations not currently exempt under RCRA Subtitle C or mixed exempt/non-exempt solids will be tested for appropriate hazardous constituents. The test results must be submitted to the OCD along with a request to receive the non-exempt solids, and a written OCD approval (case specific) must be obtained prior to disposal. Any non-oilfield waste which are RCRA Subtitle C exempt or are non-hazardous by characteristic testing will only be accepted on a case-by-case basis and with prior OCD approval.

- (8) Comprehensive records of all material disposed of at the facility will be maintained at the facility. The records for each load will include: 1) the neight, 2) analysis for hazardous constituents if required, 3) the transporter, and 4) exact cell location and method of remediation.
- (9) No free liquids or soils with free liquids will be accepted at the facility.

TREATMEN'I' ZONE MONITORING:

- 1. A treatment zone not to exceed two (2) feet beneath the landfarm will be monitored. A minimum of one random soil sample will be taken from each individual cell six (6) months after the first contaminated soils are received in the cell and quarterly thereafter.
- 2. The soil samples will be analyzed for total petroleum hydrocarbons (TPH) using the HNU Hanby Field Test Method. If TPH is detected then a laboratory analysis will be conducted for BTEX using approved EPA methods. Immediate remedial measures will be taken and no additional contaminated soils will be placed in the cell until testing indicate that the TPH is below 100 ppm, BTEX is below 50 ppm and benzene if any is below 10 ppm.
- 3. After obtaining the soil samples the borehole will be filled with an impermeable material such as bentonite cement.
- 4. Annually samples obtained from the treatment zones will be collected and a laboratory analysis conducted using approved EPA methods in accordance with the procedures outlined in item 1.

OTHER MONITORING

- 5. Tierra Personnel working on the landfarm facility will be required to wear personal monitor devices which indicate the amount of exposure incurred from volatile organic compound vapors and to indicate the nature and extent of volatilization occurring at the site. A Photo-Ionization detector or similar device shall be kept at the facility at all times which is capable of measuring emissions of volatile organic compounds. It will also be used to conduct "Head Space" Testing of newly arrived loads of material for volatile emissions.
- 6. A particulate collector or similar device shall be kept in place and operational at the prevailing downwind side of the landfarm facility in order to measure particulate emissions drifting off the facility and to insure compliance with New Mexico Air Quality Regulations. The collector shall be examined daily.

REPORTING

- 1. Analytical results from the treatment zone monitoring will be submitted to the OCD in Santa Fe with in thirty (30) days in written form from Tierra Environmental Company with appropriate laboratory analysis included as may be required.
- 2. The OCD shall be notified of any break, spill, release, blow out, fire or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.
- 3. The OCD shall be notified immediately, in the event that volatile or particulate releases are endanger of violating New Mexico Air Quality Standards. Remedial measures to prevent violations thereof shall be approved by OCD prior to implementation, however Tierra Environmental Company, Inc. shall have the authority to deploy additional moisture as an emergency measure in order to suppress excessive emissions. OCD shall be informed of each such emergency occurrence immediately via telephone followed by a written report with in seven (7) days. No standing, pooling or runoff of water shall be permitted during such emergency application.

BOND

Pursuant to OCD Rule 711 a surety or cash bond in the amount of \$25,000.00, in a form approved by the Division, is required prior to commencing construction of the commercial landfarm facility.

CLOSURE

When the facility is to be closed, no new material will be accepted. Existing soils will be remediated until they meet OCD standards in effect at the time of closure. The area will then be resceded with natural grasses and allowed to return to its natural state. Closure will be pursuant to all OCD requirements in effect at the time of closure.

TRANSFERABILITY

Authority for operation of the landform facility shall be transferrable only upon written application and approval by the Division Director.

Jurisdiction of this cause is retained for the entry of such further orders as the Division deems necessary.

DONE at Santa Fe, New Mexico, on this ____ day of ____ 1992.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

THOMAS J. HYNES • J. KEVIN HALE • LARRY T. THROWER

1000 West Apache Farmington, New Mexico 87401

OFF.: 505/325-8813 FAX: 505/326-6177

) •

September 23, 1992

Attn: Bob Stovall State of New Mexico Oil Conservation Division State Land Office Bldg. Santa Fe, NM 87504

Dear Bob:

We have received Mr. Bichan's comments dated September 21, 1992, regarding our proposed order. The response of Tierra Environmental is attached. I understand that Mr. Vavra may have made some response but we have not been favored with a copy of that response and would appreciate same. We have no problem with the September 10 letter from Mr. Bichan, a copy of which is attached. I note in Mr. Bichan's letter of September 21, that he indicates the September 10 correspondence was never delivered to you and I am attaching that copy for your reference.

Could you please present the attached to the Examiner and any information you could provide as to when a recommendation from the Examiner would be forwarded to the Director would be much appreciated as further delay entails economic loss to my clients.

Sincerely yours,

HYNES, HALE & THROWER

J. Kevin Hale

JKH:nh

cc: Client

ARTHUR H. BICHAN 6750 Colby Lene Bloomfield Hills, Mt 48301 (313) 851-4364

SEPT. 21, 1992

Kevin Hale, Attorney 1000 West Apache Farmington, N.M. 87401 PAX 505-326-6177

Sir:

Attached please find my comments on the proposed Permit.

The comments previously sent to you, which were not sent to the O.C.C., did not seem to be specific enough to protect us or the Vavras, with certainty.

I hav FAX'd these comments to the O.C.D. this date.

Respectfully,

Arthur H. Bichan

ARTHUR H. BICHAN 8750 Colby Lane Bloomfield Hills, MI 48301 (313) 851-4364

SEPT. 21, 1992

State of New Mexico Oil Conservation Division State Land Office Bldg. Sante Fe, N.M. 87504 PAX 505-827-5741

Attn: Robert Stovall

Sir:

I am in receipt of Mr. Hale's letter of September 8 and the enclosed proposed Fermit for Landfarm Facility.

I object to the following parts for the reasons stated.

FINDS THAT;

(1)

At a point in the Hearing where it appeared that the Opponents, the Applicant and the Examiner agreed to a workable procedure for operation of the Landfarm, the meeting was suddenly concluded at noon. I was denied the opportunity to put on the record my objection to the content of the Notice to nearby landowners and occupants.

The notice mailed by the Applicant misstates the law and is so written as to conceal the purpose and intent to evaporate highly toxic toluene, xylene and benzene into the atmosphere when it is known by the Applicant that said materials are a danger to public health and to the

environment.

The notice published by the O.C.D. is also faulty in that it not only fails to reasonably advise the public but does misinform when it states "solids containing "non-hazardous" contaminants".

(6)

Mr. Vavra and Mr. Bichan intend that their complaint regarding notice would be withdrawn on condition that the permit assures application of water in sufficient quantity and with sufficient frequently to prevent volatilization of hydrocarbons and prevent blowing dirt and dust.

(7)

The parties agreed that the frequent addition of moisture sufficient to keep the surface damp, if implemented, would be satisfactory.

PROVIDED FURTHER THAT,

(5)

This paragraph must state that the amount and frequency of the addition of water shall be sufficient to maintain surface dampness as will prevent emission of volatile hydrocarbons and blowing dust and dirt.

OTHER MONITORING

A Recording Photo-Ionization detector should be maintained along the east property line at the point of longest sweep across the landfarm for a 235* (degree) wind. The records should be immediately delivered to the local office of the O.C.D. for availability for public inspection. The detector should be re-calibrated and certified by a competent testing agency at such frequency as is recommended by the manufacturer.

Respectfully,

Arthur H. Bichan

PAGE 3.0F 3

Kevin Hale, Attorney 1000 West Apache Farmington, New Mexico 87401

RE: COMMENTS TO OCD FROM ARTHUR BICHAN AND GLEN VAVRA, REGARDING TIERRA LANDFARM:

Dear Kevin:

We have received and reviewed your FAX containing Mr. Bichan's second set of comments, dated September 21, 1992.

As you have requested during our phone conversation this date Tierra makes the following response.

FINDS THAT:

(1) The Hearing is a matter of record and we would defer to the minutes thereof.

The notice mailed by Tierra cited RCRA Subtitle C as the authority for classification of non-hazardous oilfield waste. Any concerned party should review RCRA Subtitle C and the exemption for constituents of crude oil or any fraction thereof produced as a result of oil and gas exploration, production or processing. They are not declassified as being hazardous per se and are not declassified as potential contaminants or pollutants. They are exempted only for the purpose of practical application in the field and subsequent handling thereof.

It has never been, is not now, nor will it ever be Tierra's intention to remediate materials accepted at the landfarm facility, by volatilization. Bio-degradation is the purpose of the landfarm. Most light end emissions although they are bio-degradable, from material brought to the facility ,would have already evaporated prior to arrival. Heavy hydrocarbons will not volatilize. They must be bio-degraded.

(6) The hearing is a matter of record and we would defer to the minutes thereof regarding particular conversations.

Tierra has stated in the written draft order we prepared at OCD's direction, that we will add moisture for the purpose of reducing hydrocarbon emissions and to enhance biodegradation. Moisture cannot be added to the degree that hydraulic drive of contaminants into native soils and/or groundwater would occur.

Soils will be characterized using information from the Soil Conservation Service in order to determine how much moisture is appropriate to stabilize the soil types. Blanket addition of moisture to several different soil types is unreasonable and could result in contaminants being driven into the subsurface. We have also agreed to special tilling practices that would also reduce to the most possible degree, dust and blowing dirt. Tierra has made every attempt to comply not only with the wishes of the protestants but to follow the rules of OCD and good, responsible landfarm management practices. It is our duty, purpose and intent, to protect health, safety and the environment to the best of our ability and according to law.

PROVIDED FURTHER THAT:

(5) We refer to (6) above.

OTHER MONITORING:

Tierra will not agree to Mr. Bichans comment regarding a recording Photo-Ionization detector. As a stationary device, if there is such a device, it would record vehicle emission and emissions in the air from sources other than the landfarm. The results would not depict accurately air emissions from the facility. Additionally, the Crouch Mesa area has been and is still a target for vandals, as atleast Mr. Vavera is aware. A portable photo-ionization detector is expensive. One that is stationary, with a recorder is no doubt more expensive. It is unreasonable to require Tierra to install such an expensive and ineffective device. The only purpose it would serve, is to invite vandalism and add Tierra as a victim to the vandals list. Most air monitoring is conducted for particulate concentrations emissions. Tierra has agreed to a particulate collector. We have also agreed to conduct headspace testing of newly arrived material and to random sample material being remediated, with a portable photo-ionization detector. That is a standard operating procedure we would follow whether it was required or not by OCD. In the interests of personal safety, we will require our on-site personnel to wear personal monitoring devices that would indicate the amount of exposure they are receiving daily from volatiles. If our personnel who are on site and working with the material being remediated are not over-exposed, persons with in the vicinity of the landfarm facility should have no cause for concern. Tierra intends to keep records of exposure readings from the personal monitoring devices, for our own protection and the protection of our personnel. We would agree to make those records available to OCD for their inspection, when ever required. We would further welcome frequent visits and on-site inspections from OCD or any other agency for the purpose of verification of records, procedures, comment, advice, equipment checks, etc.

COMMENTS FROM MR. VAVRA

In a phone conversation this date with Ms. Brown of OCD, I was informed that comments from Mr. Vavra were also received by OCD. I do not have copies thereof. However according to Ms. Brown, he basically requested to be sent copies of the results of all testing conducted at the facility, including Head Space testing results from newly arrived material.

Information sent to OCD as required by their rules, we assume becomes public record and is available for inspection by the public. We also assume that Tierra would be required to send copies of those same testing results to the local OCD office and that they would also become public record and available therefore. Head Space testing is not included. Records of on-site activity are required to be kept on location by OCD rules for their inspection. If the OCD wishes to forward that information at their expense to concerned parties, we have no objection.

We would object to releasing information, that contained client lists, pricing, or other information that would be of a business nature and of interest to any competitors.

Sincerely,

TIERRA Environmental Company, Inc.

Phillip C. Nobis

Vice President

ARTHUR H. BICHAN 6750 Colby Lane Bloomfield Hills, MI 48301 (313) 851-4364

SEPT. 21, 1992

State of New Mexico Oil Conservation Division State Land Office Bldg. Sante Fe, N.M. 87504 FAX 505-827-5741

Attn: Robert Stovall

Sir:

I am in receipt of Mr. Hale's letter of September 8 and the enclosed proposed Permit for Landfarm Facility.

I object to the following parts for the reasons stated.

FINDS THAT;

(1)

At a point in the Hearing where it appeared that the Opponents, the Applicant and the Examiner agreed to a workable procedure for operation of the Landfarm, the meeting was suddenly concluded at noon. I was denied the opportunity to put on the record my objection to the content of the Notice to nearby landowners and occupants.

The notice mailed by the Applicant misstates the law and is so written as to conceal the purpose and intent to evaporate highly toxic toluene, xylene and benzene into the atmosphere when it is known by the Applicant that said materials are a danger to public health and to the environment.

The notice published by the O.C.D. is also faulty in that it not only fails to reasonably advise the public but does misinform when it states "solids containing "non-hazardous" contaminants".

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The parties agreed that the frequent addition of moisture sufficient to keep the surface damp, if implemented, would be satisfactory.

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Respectfully,

Arthur H. Bichan

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PAGE ZOF 3

ARTHUR H. BICHAN 8750 Colby Lane Bloomfield Hills, MI 48301 (313) 851-4364

SEPT. 21, 1992

Kevin Hale, Attorney 1000 West Apache Farmington, N.M. 87401 FAX 505-326-6177

Sir:

Attached please find my comments on the proposed Permit.

The comments previously sent to you, which were not sent to the O.C.C., did not seem to be specific enough to protect us or the Vavras, with certainty.

I hav FAX'd these comments to the O.C.D. this date.

Respectfully,

Arthur H. Bichan

thus H. buil

Oil Conservation Division State Land Office Building Santa Fe New Mexico 87504

Dear Sir

On page 3 paragraph 5 it should state how the water will be applied. I believe that a sprinkler system set up with a monitor or timer would be for more efficant than a water truck. A water truck would compress
the soil and their would be a bigger chance of the water running off or creating peols. On page 4 paragraph 5 I think a Photo-Ionization detector or similar device should be kept on the downwird side of the landform to measure the volatile on one would be examined emmissions that the wind carries away, and should be examined daily along with the particulate collector. And I would like a copy of all test results on all incoming soils, and soil sampels that are taken quarterly, and the results taken from the porticulate collector, and Photo Ionization dector, they can be mailed on a quarterly basis. It the tiling methods and wetting of the soil does not solve the wind erosion problem that the planting of trees and shrubs be planted downwind, beyond the pipeline rightof may.

Thank you down

PERMIT FOR LANDFARM FACILITY

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.
ORDER NO.

APPLICATION OF TIERRA ENVIRONMENTAL COMPANY, INC. FOR PERMISSION TO OPERATE A LANDFARM, FOR THE REMEDIATION OF NON-HAZARDOUS OIL FIELD WASTES:

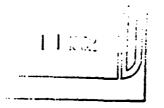
ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on Mexico, before Examiner M		8:15 am on September 2, 1992 at Santa Fe, New ner.
NOW, on this the testimony, the record are these premises,	of ad the recomme	1992, the Division director, having considered ndations of the Examiner, and being fully advised in
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) Section 70-2-12 B (15), authorizes the Oil Conservation Division and Commission to regulate the disposition of non-domestic wastes resulting from the exploration, development, production or storage of crude oil or natural gas to protect public health and the environment.
- (3) That Tierra Environmental Company, Inc. has applied to the Division pursuant to OCD Rule 711 for permission to operate a landfarm facility for the remediation of non-hazardous hydrocarbon contaminated soils using an enhanced biodegradation process. Said area is to be located in NW/4, SE/4 (Unit J) of Section 2, Township 29, Range 12 West, which is approximately six (6)(miles east of the City of Farmington, New Mexico. This application has been administratively determined to be approveable.

ARTHUR H. BICHAN 6750 Colby Lane Bloomfield Hills, MI 48301 (313) 851-4364



September 10, 1992

State of New Mexico Oil Conservation Division State Land Office Bldg Sante Fe, N.M. 87504

Attention: Bob Stovall

Sir:

I am in receipt of Mr. Hale's letter of September 8 and the enclosed proposed Permit for Landfarm Facility.

I object to the language of:

"FINDS THAT;

That following testimony by Mr. Cheney and Mr. Bichan, Mr. and Mrs. Vavra withdrew their complaint regarding proper notice under OCD Rule 711."

The Vavras agreed to withdraw their complaint of failure of notice if a new permit with satisfactory provisions to safeguard their property and their children could be agreed upon.

"PROVIDED FURTHER THAT,

This paragraph requires only initial addition of moisture. agreement was that the Applicant would continue to spray (the discussion was about a spray system or use of water trucks, etc) so that evaporation or dust and blowing sand would not occur.

Therefore, I ask the following sentence be inserted after "----from natural wind action." and before "Water shall not be added -----" to wit:

> Intermittent light surface spraying shall be continued so as to keep the surface sufficiently moist as will prevent evaporation of harmful levels of hydrocarbons and to prevent blowing dust and sand.

"REPORTING

----, however Tierra Environmental Company Inc. shall have the AUTHORITY to deploy additional moisture -----

I ask that AUTHORITY be changed to DUTY.

Respectfully,

Arthur H. Bichan

cc: Kevin Hale, Atty. Glenn Vavra

TELECOPIER TRANSMITTAL

DATE:	9/29/92
COMPANY:	OCA
ATTENTION:	Kathy Brown
PAX No.:	(505)-827-5741
NO. OF PAGES	(including this page)
FROM:	Ph: 1 Nobis - Tierra CALL 1-606-327-3303
	S COMMENTS
	here is information regarding
the typ	here is information regarding e of personal manitoring device
the typ	here is information regarding e of personal manitoring device proposing to use for our on-site
the typ	here is information regarding e of personal manitoring device proposing to use for our on-site
the typ	here is information regarding e of personal manitoring device

ASSOCIATES, INC.

FAX. NO. 1-505-327-1471

Dosimeter Tubes

SERISIDY NET

AMMONIA (NH,)
CARBON DIOXIDE (CO,)
CARBON MONOXIDE (CO)
CARBON MONOXIDE, LOW RANGE (CO)
CHLORINE (CI,)
FORMALDEHYDE (HCHO)
HYDROGEN CYANIDE (HCN)
HYDROGEN BULFIDE (H,S)
NITROGEN DIOXIDE (NO,)
SULFUR DIOXIDE (SO,)
TOLUENE (C,H,CH,)

PRINCIPLE OF OPERATION

The innovative Senaldyne/Gastec dosimeter tubes provide on the spot, time weighted average (TWA) monitoring of contaminants in air. Sensidyne/Gastec dosimeter tubes are the "direct reading" type, with the calibration scale printed on each tube, so measurements can be made as simply as reading a thermometer. No pumps, paper charts, secondary operations or laboratory jumply is required.

Each diffusion tube contains a reagent which is specifically sensitive to a particular vapor or gas. The reagents are contained on a fine grain absorbing media inside a constant inner diameter, hermetically sealed glass tube.

The actual operation is simple and can be performed by anyone. Just snap off the "break away" pre-accred end of the tube (see figure 1) and insert it in the tube holder. The gas or vapor to be measured immediately enters the tube by the natural laws of diffusion and reacts with the absorbing media quantitatively to produce a length-of-stain indication. Sensidyne/Gastec's unique two-layer construction (patent pending) provides a distinct line of demarcation. With two-layer construction, stain length is maximized to provide optimum accuracy and sensitivity (see figure 1). The dosimeter tube is read in parts per million-hours (ppm hours). At the end of the sampling period, note the ppm calibration mark on the tube at the point where the color stain stops and simply divide this number by the number of hours in the sampling period to obtain the time weighted average (TWA) part per million (ppm) concentration. It's simple, safe, precise and fast.

FEATURES:

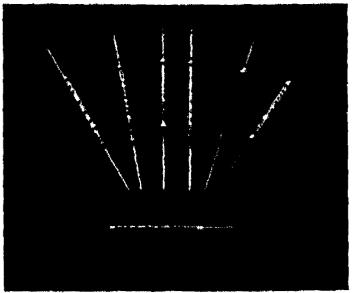
What It Means to You

(1) Simple On The Spot Sampling

The gas concentration is shown by the length of stain. The measurement is precisely indicated on a single calibration scale printed on each tube. With Sensidyne/Gaster direct reading dosimeter tubes, anyone can accurately take a TWA measurement. There is no confusion, no interpretation, no long calculations, no color comparison cards, no pumps and no secondary operations. You do not have to translate readings to graphs and charts or add reagents. You just read the length of stain and divide by the eampling time. You avoid the time and expense of laboratory analysis. You no longer have to wait days and days to find out if you have a problem. You can tell at a glance and start corrective action immediately.

(2) Longer Sampling Period

incorporating a unique (patent pending) diffusion process. Sensidyne/Gastec dosimeter tubes have greater linearity for longer exposures. Sensidyne/Gastec dosimeter tubes may be used for sampling periods as short as 15 minutes or as long as 24 hours. This means you can go right on sampling each worker without added costs or sampling error even when overtime is required. And if you need to continuously measure the TWA concentration for a full day, or for as little as 15 minutes, it's no problem with Sensidyne/Gastec.



Sentidyne/Gasted diffusion tubes offer a palent-pending diffusion process with a clearer line of demarcation for Ci₂, CO, CO Low Range, CO₂, HCN, H₂S, NO₂, NH₂, SO₂, Toluene and Formaldehyde.

(3) Economical Sampling

The Sensidyne/Gastec docimeter tubes allow you to accurately make repeated TWA measurements with the same docimeter tube holding down your sampling coats (i.e., hourly readings in an 8-hour shift). Numerous intermittent values can be directly read from a single tube at any time during the measuring period. This means it is inexpensive and easy (only one tube required) to develop concentration profiles for each worker over a normal shift or extended sampling period. Many other docimeter systems require one collection medium (badge, etc.) be used for each sample segment increasing your coat and the risk of error.

(4) Comfortable and Safe Tube Holder

Manufactured of a corrosion-resistant, high-impact plastic, the Sensidyne/Gastec tube holder is small, light weight and conveniently clips to the worker's collar or shirt without damaging the fabric. The dosimeter tube simply snaps securely into place and can easily and accurately be read while in the tube holder, it is not necessary to remove the dosimeter tube to take a reading. Designed for added worker safety and comfort, the Sensidyne/Gastec tube holder firmly affixes the tube holder to the worker and prevents the tube holder from dangling far in front of the worker. An additional string attachment can be secured to the holder and worn around the user's neck, eliminating the possible contamination of a production vat from a dropped tube and tube holder.

(5) Accurate and Reliable

The Sensidyne/Gastec dosimeter tubes exceed NIOSH and OSHA minimum performance criteria for TWA measurements with detector tubes. Precise TWA measurements are assured by our previously NIOSH approved quality control program. Several competitor's dosimeter systems utilize a general calibration scale which is not tied to each production lot. For guaranteed accuracy and reliability, Sensidyne/Gastec calibration scales for dosimeter tubes are printed on each tube on the basis of individual production lots. You svoid problems associated with accuracy or quality that are found with any dosimeter tube using a common calibration scale for different production lots.

Since all of Sensidyne/Gastec dosimeter tubes are direct reading, you avoid extra steps in analysis which introduce human error, lost samples and questionable accuracy. With Sensidyne/Gastec dosimeter tubes, TWA measurements are simple; safe, precise, and fast.



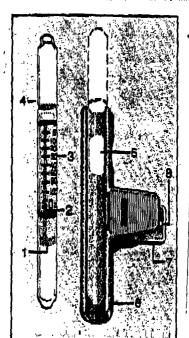


Figure 1

- 1. Diffusion Path
- Indicating Layer
 Calibration Marks
 Pre-Scored Break-Off Area
- 5. Access Hole for Tube Removal
- Tube Holder
- 7. Clip
- 8. String Attachment for Extra Precaution

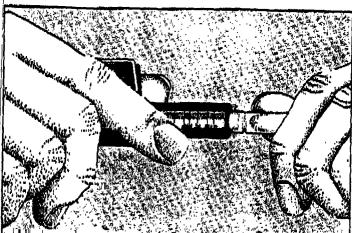
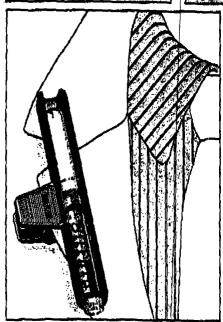


Figure 2

To break the tube, the holder with the tube should be directed away from the body (e.g. toward the floor).



■ Notice the color change and record your reading then simply divide by the number of hours for the TWA (PPM·HR).

Why our system is better:

Conventional diffusion tubes have a diffusional cross section area (A) equal to the analyzer cross section area (A_0) .



With Sensidyne/Gastec's: dual layer design the diffusional area Ala much larger than Ao.



The length of the stain is determined by the equation $\ell^2 = K$.

where: l = Length of stain

A₀ = Analyzer cross section area C = Concentration

- Concentration

= Tube Reactivity Constant C = Diffusional cross section area 1 - Ilmb

With conventional tubes the ratio of A/A₂ equals one. With Sensidyne/Gastec tubes the ratio of AAo is greater than one. With all other conditions constant the l value will be larger for the Sensidyne/Gastec tube, providing a longer stain per unit of concentration, and therefore, greater sensitivity and clearer lines of demarcation.

Gas or Vapor Detecting to be Chemical Tube Range (PPM/hours) Limit (ppm) Color Storage

Although it is Not listed, they make one for BTEX. IT is the exact Same Device.



GOVERNOR

State of New Mexico

L CONSERVE ON DIVISION RECE. VED

ENVIRONMENT DEPARTMENT, 92 SEP 14 AM 9 33 1190 St. Francis Drive, P.O. Box 26110 Santa Fe. New Mexico 87502 (505) 827-2850

JUDITH M. ESPINOSA SECRETARY

> RON CURRY DEPUTY SECRETARY

September 4, 1992

Arthur H. Bichan 6750 Colby Lane Bloomfield Hills, MI 48301

Dear Mr. Bichan:

Thank you for your letter of August 7, 1992, and for sharing your concerns about the proposed landfarming of oilfield wastes by Tierra Environmental in San Juan County.

Under New Mexico law, water pollution concerns at oilfield exploration or production facilities fall under the jurisdiction of the New Mexico Oil Conservation Commission (OCC). The subject facility proposes to handle nonhazardous oilfield exploration and production wastes and therefore is subject to the regulations and permitting requirements of the OCC.

Based on requests such as yours, a public hearing on this application was held by the OCC in Santa Fe on September 2. I hope you attended and provided testimony for consideration by the OCC in their decision to grant or deny the permit.

Air quality concerns for the proposed facility fall under the jurisdiction of the New Mexico Air Quality Act, which the New Mexico Environment Department (NMED) implements in San Juan County. NMED's Air Quality Bureau reviewed the application of Tierra Environmental, as well as additional written information provided by the New Mexico Oil Conservation Division, and concluded that air pollutant emissions were insufficient to justify an air permit.

State and federal environmental laws provide only part of the legal framework within which facilities such as Tierra must operate. Another component is zoning. In New Mexico zoning authority is vested in local governments. The responsibility for managing potentially incompatible land uses, such as industrial and residential areas, lies with counties and municipalities.

Sincerely,

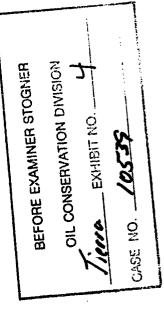
Judith M. Espinosa

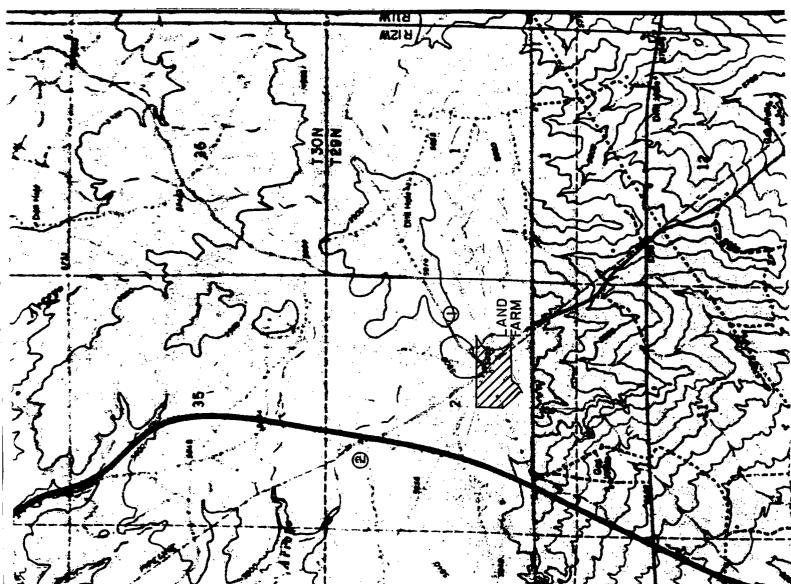
Secretary

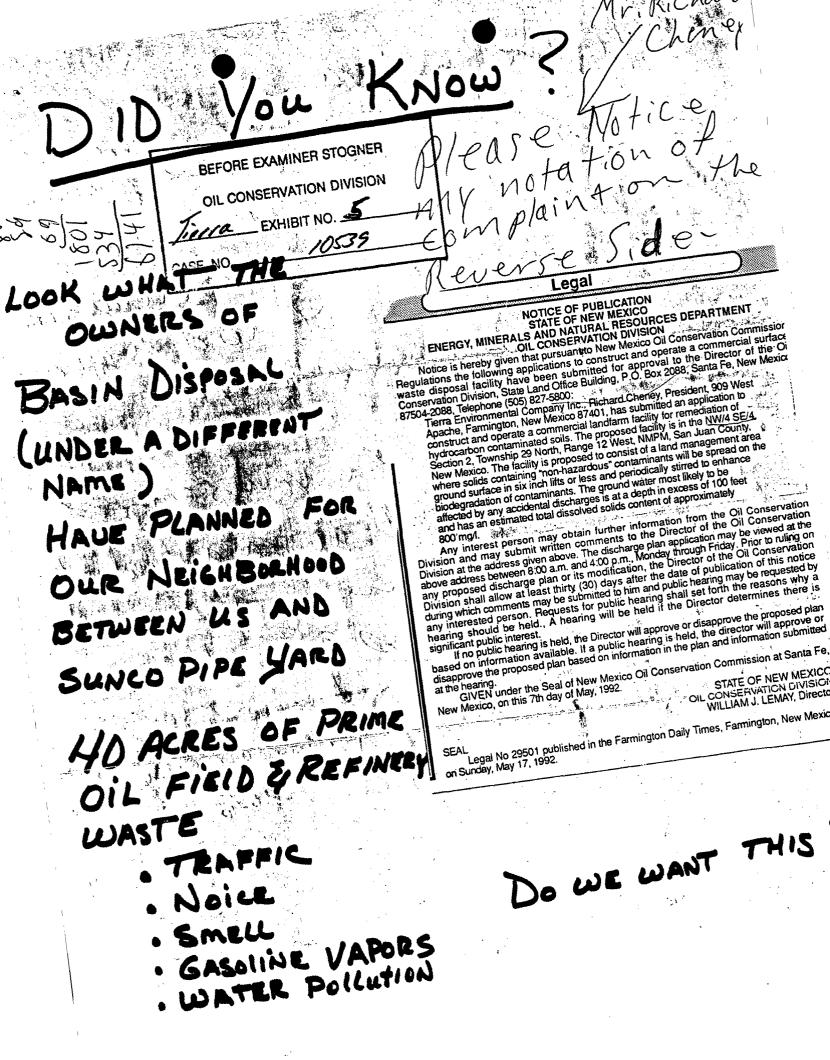
Roger Anderson, Oil Conservation Division Cecilia Williams, NMED Air Quality Bureau



GLEN VAVERA STATUS: PURCHASING LAND ON CONTRACT FROM L. WOODARD GEORGE COLEMAN
SUNCO INC.
STATUS: MANAGERS QUARTERS







Mot To Richard Cachey

We do not want this !!!

I am bring opposed to having another landdump out here on the Mesa. For one thing, we have one already, and 4 another, we don't need anymore pollution around here; Epecially not in Our hater. Plus we have too much traffic out here too 2 Be you sare of this, it you all do go ahead up Janddung, I will heren take anythi out there to damp 50 ptease reconsider your plans, and side of the sake of the people infermenal around here Again, we have too much pollution around here already, and its making alot of people sick. Than X 4 WHO Ever got the Sincerity David Miller Sunnyside Lawn Serve Idea of making another Land Dump, was not a wise person!!!!!

Arthur Bichan

Crouch Mesa Site

Wind Erosion Situation Windy Season February 15 - May 15 out of Southwest

L Unsheltered Distance across 80 acres (1320' wide)=1500 ft.

I 134 = Loamy Very Find Sand; Loamy Fine Sand; Sandy Loam; or Coarse Sandy Loam

C from Map = 80

Various Ridge Roughness (K values)

1" Ridge height 0 10" spacing = .8

1 1/2" Ridge height 0 10" spacing = .6

1 1/2" Ridge height 0 12" spacing = .7

2" Ridge height 0 10" spacing = .5

2" Ridge height 0 12" spacing = .6

Attached are examples of various K values and unsheltered distances and the expected wind erosion soil losses

No Residue or Flat Small grain equivalent is used.

All ridge roughness is perpendicular to prevailing wind. (Rows run NW to SE)



L (Unsheltered Distance) = 1500 ft. Conversion to Cu Yds Tons/ac/yr Sandy loam ie 100 lbs/cu ft No Cover K 1.0 × 2000 ÷ 100 ÷ 27 105.2 = 77.9 cu yds/ac.8 81.0 = 60.0.7 70.0 = 51.8.6 = 43.158.2 .5 46.4 = 34.4

L (Unsheltered Distance) = 50 ft.

L (60 ft. Strips with 5 foot high Barrier ie Eastern Red Cedar Trees)

5 ft. x 10 = 50' Effective protection 60 - 50 = L of 10 feet K 1.0 21.7 Tons/ac/yr = 16.1 cu yds/ac .8 11.2 = 8.3 .7 6.7 = 4.9 .6 4.1 = 3.0 .5 1.6 = 1.2

UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE 504 NORTH MAIN AZTEC, NM 87410 - 334-6888

August 20, 1992

Mr. Arthur Bichan 6750 Colby Lane Bloomfield Hills, MI 48301

Dear Mr. Bichan:

Enclosed are some wind erosion projections for a site on Crouch Mesa which Tierra Environmental is proposing a land farm. As this technology is designed for Agronomic situations, no attempt to weigh the erodibility of oil saturated dirt has been made.

As you will note, our charts indicate considerable reduction of soil loss from wind erosion by reducing the unsheltered distance and keeping the site ridge roughness at a .5 value.

Sincerely,

Billy L. Peterson

District Conservationist

	•	Page 1	
NEW ME	XICO OIL CONSERVATION COMMISSION		
	EXAMINER HEARING		
	SANTA FE , NEW MEXICO		
Hearing Date	SEPTEMBER 2, 1992	Time: 8:15 A.M.	
NAME	REPRESENTING	LOCATION	
ARTHUR H. BICHAN	SELF		
Bill Olson Kathy Brown Denny Foust	OCB	South Fe Santafe Aztec	
KathyBrown	OCD	Santate	
Denny Foust	OCD	Aztec	
And the state of t	The state of the s		
		-	

1	NEW MEXICO OIL CONSERVATION DIVISION
2	STATE OF NEW MEXICO
3	CASE NO. 10539
4	
5 .	IN THE MATTER OF:
6	
7	The Application of Tierra Environmental Company, Inc., for a commercial surface
8	waste disposal facility, San Juan
9	County, New Mexico.
10	
1 1	
1 2	
13	
1 4	BEFORE:
15	
16	MICHAEL E. STOGNER
1 7	Hearing Examiner
18	State Land Office Building
19	September 2, 1992
20	
2 1	·
2 2	REPORTED BY:
23	DEBBIE VESTAL Certified Shorthand Reporter
2 4	for the State of New Mexico
2.5	

ORIGINAL

1	APPEARANCES
, 2	
3	FOR THE NEW MEXICO OIL CONSERVATION DIVISION:
4	ROBERT G. STOVALL, ESQ. General Counsel
5	State Land Office Building Santa Fe, New Mexico 87504
6	
7 8	ENVIRONMENTAL BUREAU REPRESENTATIVES:
9	MR. BILL OLSON MS. KATHY BROWN
10	
11	FOR THE APPLICANT:
12 13 14	HYNES, HALE & THROWER Post Office Box 287 Farmington, New Mexico 87401 BY: <u>KEVIN J. HALE, ESQ.</u>
15 16	PRO SE:
17	MR. ARTHUR H. BICHAN 6750 Colby Lane Bloomfield, Michigan 48301
18	MR. AND MRS. GLENN VAVERA Post Office Box 3656
20	County Road 3100, House 367 Aztec, New Mexico 87410
21	
22	
23	
2 4	
25	

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION -> FAX 505-827-5741

IN THE MATTER OF THE HEARING

CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:	
	CASE NO.
APPLICATION OF	
TIERRA ENVIRONME	ENT COMPANY, NC.
(hearing motived for	ENT COMPANY, NC.
	NG STATEMENT
This prehearing statement is sub required by the Oil Conservation Divis	omitted by <u>Arthur H. Bichan</u> as
APPEARAN	CES OF PARTIES
APPLICANT	ATTORNEY
name, address, phone and contact person	
OPPOSITION OR OTHER PARTY	ATTORNEY
ARTHUR H. BICHAN	
6750 COLISY LANG	
SLOOMFIELD HILLS, PIT.	
(313) 851-4364	
name, address, phone and	
contact nerson	

Application & investmental 2 There Environmental 2 hearing set for Sept. 2

STATEMENT OF CASE

APPLICANT

(Please make a concise statement of what is being sought with this application and the reasons therefore.)

OPPOSITION OR OTHER PARTY

(Please make a concise statement of the basis for opposing this application or otherwise state the position of the party filing this statement.)

- I. The applicant intends to remediate soil by evaporation to get rid of health and environment endangering Topicante -BENZENE, TOLVENE, XYLENE, ETHANE and in such a manner as to be carried -downwind onto dwellings occupied by children are young as 6 months with no provision to keep concentrations below safe limits.
- 2. The applicant intends to spread contemetrated soil on the ground in such a manner that the wind will carry the excessively contaminated soil onto adjoining property occupied by children as young as 6 months. Further, the soil thus transported before reaching safe levels can be washed down the fillside and concentrate and saturate the bottom of the hill,
- 3, the O.C.D. approval (surpended) of the permit affords no protects for public health or the environment although specifically charged to does so by State Statute.

P03

hearing set to left 2

Pre-hearing Statement NMOCD Case No. ___ Page 3

PROPOSED EVIDENCE

APPLICANT

WITNESSES (Name and expertise)

EST. TIME

EXHIBITS

OPPOSITION

WITNESSES (Name and expertise)

EST. TIME

EXHIBITS

GLONN VAVRA -

KNOWLEDGE OF AREA

1/2 HR.

TITLES

PROCEDURAL MATTERS

(Please identify any procedural matters which

- 1. The O.C.D. failed to provide hearing rules although requested. 2. The O.C.D. failed to provide a copy of application although requested.
- 3. applicable failed to propide notice to land owners and occupants and provide proof of pervice as required by Rule 711

tun H. Sil

STATE OF NEW MEXICO OIL CONSERS. ON DIVISION ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION 192 AUG 31 PM 10 13

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

CASE NO.

APPLICATION OF

PRE-HEARING STATEMENT

This prehearing statement is submitted by		
APPEARAN	CES OF PARTIES	
APPLICANT	ATTORNEY	
		·
name, address, phone and contact person		
OPPOSITION OR OTHER PARTY	ATTORNEY	
Glenn Varra PO Box 3656 Farmingto- NM 97499		
name, address, phone and contact person		

STATEMENT OF CASE

APPLICANT

(Please make a concise statement of what is being sought with this application and the reasons therefore.)

OPPOSITION OR OTHER PARTY

(Please make a concise statement of the basis for opposing this application or otherwise state the position of the party filing this statement.)

The purposed use is a danger to the health of me and my wife and four children age 5 months to 7 years of age Their has been no environmental dept, permit issued and the applicant has failed to comply with rule 711. The OED has not provided for protection of public health and the environment as demanded by statute.

Pre-hearing Statement NMOCD Case No. ____ Page 3

PROPOSED EVIDENCE

APPLICANT

WITNESSES (Name and expertise) EST. TIME

EXHIBITS

OPPOSITION

WITNESSES
(Name and expertise)

EST. TIME

EXHIBITS

PROCEDURAL MATTERS

(Please identify any procedural matters which need to be resolved prior to the hearing)

Applicant has failed to comply with rule >11-A-2

Signature

Docket No. 27-92

Dockets Nos. 31-92 and 32-92 are tentatively set for September 17, 1992 and October 1, 1992. Applications for hearing must be filed at least 23 days in advance of hearing date.

DOCKET: EXAMINER HEARING - TUESDAY - SEPTEMBER 1, 1992 8:15 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Michael E. Stogner, Examiner or David R. Catanach, Alternate Examiner:

CASE 10507: (Continued from August 6, 1992, Examiner Hearing.)

Application of C & C Landfarm Inc. for a commercial surface waste disposal facility, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authorization to construct and operate a commercial landfarm facility for remediation of non-hazardous hydrocarbon-contaminated soils using an enhanced biodegradation process. Said area is to be located in the SW/4 NE/4 (Unit G) of Section 3, Township 20 South, Range 37 East, which is approximately 2 miles southeast of Monument, New Mexico. This application has been administratively determined to be approvable, and this hearing is scheduled to allow parties the opportunity to present technical evidence why the application should not be approved pursuant to the rules of the Division. In the absence of objection, this application will be taken under advisement.

Docket No. 28-92

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 2, 1992
8:15 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM, STATE LAND OFFICE BUILDING,
SANTA FE, NEW MEXICO

The following cases will be heard before Michael E. Stogner, Examiner or David R. Catanach, Alternate Examiner:

CASE 10539: Application of Tierra Environmental Company, Inc. for a commercial surface waste disposal facility, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authorization to construct and operate a commercial landfarm facility for remediation of non-hazardous hydrocarbon-contaminated soils using an enhanced biodegradation process. Said area is to be located in the NW/ 4 SE/4 (Unit J) of Section 2, Township 29 North, Range 12 West, which is approximately 6 miles east of Farmington, New Mexico. This application has been administratively determined to be approvable, and this hearing is scheduled to allow parties the opportunity to present technical evidence why the application should not be approved pursuant to the rules of the Division. In the absence of objection, this application will be taken under advisement.



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State of New Mexico

ENVIRONMENT DEPARTMENT

JUDITH M. ESPINOSA

SECRETARY

RON CURRY
DEPUTY SECRETARY

AIR QUALITY BUREAU

Harold Runnels Building 1190 St. Francis Drive, P.O. Box 26110 Santa Fe, New Mexico 87502 (505) 827-0070

MEMORANDUM

DATE:

August 28, 1992

TO:

Roger C. Anderson, Environmental Bureau Chief

Oil Conservation Division

FROM:

Bobby Myers, Environmental Engineer, Air Quality Bureau

Environment Department | U/~

SUBJECT:

Tierra Environmental, Inc., Landfarm Application

Applicable Air Quality Permits and Regulations

The Bureau has received your request for a regulatory determination as to whether an air quality permit would be required for the proposed Tierra Environmental hydrocarbon-contaminated soil landfarm near Farmington, New Mexico. Listed below is a summary of my understanding of the proposed project:

- Tierra proposes to accept solids, semi-solids and sludges in soil from oil and gas operations to be landfarmed in order to reduce hydrocarbon contamination in the soil.
- The landfarm is intended to utilize a bio-remediation process to reduce the concentration of heavy-end hydrocarbons to OCD accepted levels. In the initial phase, a one-acre plot will be used to demonstrate the effectiveness of the project, and then will be expanded to include the 21.9 acre land site for bio-remediation.
- The land farm WILL NOT be used for volatilization of light-end hydrocarbons to the atmosphere to reduce contaminated soil concentrations.
- Water is to be added to the contaminated soils in order to enhance the bioremediation process, but will also aid in suppressing wind-blown dust from the area.

Since the project will not be releasing hydrocarbons to the atmosphere, and dust suppression is to be used, then an air quality permit is not required for this facility. If, however, the scope of work changes at some time in the future to include volatilizing hydrocarbons to reduce soil contaminant levels, then the facility may require a permit both for hydrocarbon emissions to the atmosphere and for particulate emissions, since water treatment would likely be discontinued to enhance volatilization.

XC: Cecilia Williams, Bureau Chief, Air Quality Bureau David Vackar, Director, Environmental Protection Division



STATE OF NEW MEXICO



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING GOVERNOR ANITA LOCKWOOD CABINET SECRETARY

MEMORANDUM

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

TO:

BOBBY MYERS, Environmental Engineer II

Air Quality Bureau

FROM:

ROGER C. ANDERSON, Environmental Bureau Chief

Oil Conservation Division

SUBJECT:

TIERRA ENVIRONMENTAL, INC., LANDFARM APPLICATION

CLARIFICATION OF APPLICATION

DATE:

AUGUST 27, 1992

This memo is in response to your verbal request made on August 24, 1992 requiring additional information on the primary purpose of the landfarm and the methods utilized to accomplish this. The primary purpose of all OCD permitted landfarms is to bioremediate non-hazardous, hydrocarbon-contaminated soils. A landfarm allows the contaminated soils to be remediated rather than disposed of or left in place.

The principle of the landfarm operation is to add moisture and nutrients to the soils and then to disc or turnover the soils to enhance biodegradation. This type of operation relies on the biochemical and physical breakdown of the contaminants as opposed to volatilization of the hydrocarbons. The addition of moisture will also control any problem of blowing dust.

If you have any additional questions I may be contacted at (505) 827-5812. Thank you for your time and consideration into this matter.





ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING GOVERNOR

MEMORANDUM

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

TO:

BOBBY MYERS, Environmental Engineer II

Air Quality Bureau

FROM:

ROGER C. ANDERSON, Environmental Bureau Chief

Oil Conservation Division

SUBJECT:

TIERRA ENVIRONMENTAL, INC., LANDFARM APPLICATION

APPLICABLE AIR QUALITY PERMITS AND REGUALTIONS

DATE:

AUGUST 19, 1992

The attached landfarm application from Tierra Environmental, Inc. has been submitted to the Oil Conservation Division (OCD) to review for approval of a permit in accordance with OCD Rule 711. The application proposes to construct and operate a commercial landfarm facility for remediation of hydrocarbon contaminated soils. The OCD requests a regulatory determination from the New Mexico Air Quality Bureau as to whether an air quality permit is required. If a permit is not required please comment as to whether the Air Quality Bureau would require any other type of monitoring for dust and/or hydrocarbon emmissions for this type of facility. The OCD appreciates any help you can provide to ensure our permitted oil and gas disposal facilities are environmentally safe.

OIL CONSERVE UN DIVISION

GLENN E. AND STORME S. VAVRA 92 AUG 19 PM 10 26
P.O. BOX 3656
FARMINGTON, NM 87499-3656
#367 County Road 3100
Aztec, New Mexico 87410

William J. LeMay - Director Oil Conservation Division State Land Office Building Santa Fe, New Mexico 87504

Dear Sir,

We are writing to you because of our concern for the health of our family. My husband, I and our four little girls; Tansey 7, Tawney 5, Talissa 3 and our new little baby girl Tylee 5 months.

We purchased our land in 1989, we have resided here since

February 1991.

We recently were informed of a "land farm" to be built near our land. The proposed land farm as described to us has no provisions to protect my family from the evaporating hydrocarbons particularly toulene, xylene and benzene. All of which we are led to believe are toxic substances, which cause nervous disorders, headaches, shortness of breath and nausea.

We are also advised in addition to the other effects. Benzene

is a known cancer causing agent!

This is a real threat to my precious children. There are already so many dangers in our world that could touch thier lives without them being put at our doorstep.

I see no provisions for the containing of blowing dust and dirt off the "farm". My family lives $400\,^{\prime}$ E. and downwind of this "farm".

We also have a garden every year and we are planning on drilling a water well at the beginning of next year. According to the small piece in the paper on this "land farm" the water will also be contaminated.

I respectfully request and demand a public hearing to demonstrate that in fact. These toxic and cancer causing contaminants will not stay within the bounds of the "land farm".

I further believe that there is not a citizen of New Mexico, let alone a State Government that would put my children in such certain jeopardy!

Sincerely, Storme I Vavra Lle Um

P.S. I am also sending copies of this letter to the following people:

Thomas Udall-Attorney General
Dr. Ray Powell-Office of the Governor
Michael Burkhart-Director Department of Health
Darla Wells-Representative State Legislature

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION



MEMORANDUM OF MEETING OR CONVERSATION

Telephone Personal	Time 3.00 8/19/92		Date 8/19/92
Originating Party			Other Parties
K. Brown		6 lens	et Storme Varra
JD Tect			
Objection to T	Terra Lan	detan	n Application
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to inform them of the he	canha and le	I then	n know that they
would need to sto subm	it a prehea	mhe, s	tatement if they
plan to present anyth	ing at 4h	e hear	tatement if they ong. Phone number is the OCD August 10,1992
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letter,		· (
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lonclusions or Agreements Maw	led above do	umen	tr on
a Ang. 19			ceipt P-670-683-663
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Tierra Proposed Land-farm Crouch mesa 8/6/92



Tierra Proposed Land-farm Crouch Masa 8/6/92



Tierra Proposed Landfam Crouch Mesa 8/6/92



Tierra Proposed Land farm Crouch Mesa 8/6/92



Tierra Proposed Landfarm Crouch Masa 8/6/92



Trena Proposed Ladoam Crouch Mosa 8/6/92



Tierra Proposed Landfam
Crouch Mosa
8/6/92

STATE OF NEW MEXICO



MEMORANDUM OF MEETING OR CONVERSATION

Telephone Personal	Time No answer 4:30 F.m. C	1:45 Am	Date Noanswer 8/10/92	8/11/92
Originating Party	4		Other Parties	<u> </u>
K.M. Brown - OCD		Mr.	Arthur Bichan	
		3	13-851-4364	
Joiecz Tierra Hearing I	Date of Sep	Hembe	v 2,1992-	
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STATE OF NEW MEXICO



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING GOVERNOR August 10, 1992

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

ANITA LOCKWOOD CABINET SECRETARY

CERTIFIED MAIL
RETURN RECEIPT NO. P-670-683-659

Mr. Richard P. Cheney, President Tierra Environmental Company Inc. 909 West Apache Farmington, New Mexico 87401

RE: Tierra Environmental Commercial Landfarm Application Suspension of OCD Rule 711 Permit Approval

Dear Mr. Cheney:

The Oil Conservation Division (OCD) has determined that there is significant public interest to hold a public hearing for the Tierra Environmental Company Inc., permit application for a commercial landfarm located in the NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico. The permit was approved with an effective date of August 11, 1992, under the condition that Arthur and Inez Bichan did not file a protest and request for public hearing on or before August 10, 1992. The OCD received a request for public hearing from Arthur Bichan on August 10, 1992. The OCD Rule 711 permit for Tierra Environmental Company, Inc. is hereby suspended pending a public hearing set for September 2, 1992 in Santa Fe, New Mexico.

The OCD requires all parties wishing to present technical testimony at the hearing to submit a prehearing statement by August 28, 1992. Attached is a form for submitting prehearing statements.

If you have any questions, please do not hesitate to contact Kathy Brown at (505) 827-5884.

Sincerely,

William J. LeMay Director

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Attachment

xc: Arthur H. Bichan - with attachments
Denny Foust, OCD Aztec Office

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.

APPLICATION OF

PRE-HEARING STATEMENT

This prehearing statement is submitted byequired by the Oil Conservation Division.			
APPEARANO	CES OF PARTIES		
APPLICANT	ATTORNEY		
		· · · · · · · · · · · · · · · · · · ·	
name, address, phone and contact person			
OPPOSITION OR OTHER PARTY	ATTORNEY		
name, address, phone and contact person	· · · · · · · · · · · · · · · · · · ·		

STATEMENT OF CASE

APPLICANT

(Please make a concise statement of what is being sought with this application and the reasons therefore.)

OPPOSITION OR OTHER PARTY

(Please make a concise statement of the basis for opposing this application or otherwise state the position of the party filing this statement.)

Pre-hea	ring	State	ement
NMOCD			
Page 3			

PROPOSED EVIDENCE

APPLICANT

WITNESSES (Name and expertise) EST. TIME

EXHIBITS

OPPOSITION

WITNESSES (Name and expertise) EST. TIME EXHIBITS

PROCEDURAL MATTERS

(Please identify any procedural matters which need to be resolved prior to the hearing)

Signature

RECEIVED

AUG 1 0 1992

OIL CONSERVATION DIV. SANTA FE 6750 Colby Lane Bloomfield Hills, MI 48301

August 7, 1992

William J. LeMay, Director Oil Conservation Division State Land Office Building Sante Fe, N.M. 87504

Re: Application of Tierra Environmental for Landfarm - San Juan County, N.M.

Sir:

I am in receipt of your letter dated July 21 and wish to take exception to statements in the second paragraph i.e. "you were advised of the application of Tierra at the time of your purchase and took with knowledge of same".

We arrived in San Juan County from the State of Michigan in early May. I was not advised of an "application" for a landfarm until after I purchased the property from a Tierra owner. I was not aware or advised of the intended landfarm to evaporate hydrocarbons until after our purchase. To my knowledge, no person has ever claimed that I was advised of the "application" prior to purchase. Last week, Geoff McMahon, a Tierra owner and the seller of the land to us, re-stated that he had told me there was going to be an operation for reclaiming drill site contaminated soil wherein the soil would be wetted down with water and the hydrocarbons removed by bacteria (or microbes). He stated that this was what he understood the operation to be at that time.

Clearly, we had no knowledge of the "application" or the evaporator field at the time of purchase.

Further, Glenn and Storme Vavra, a very young couple with four young children-ages 5 months to 7 years-are buying a piece of property and have lived on said property for more than two years. This fact is well known to at least one of the owners of Tierra and obvious to anyone inspecting the area. The Vavra property lies along the extended north line of the proposed landfarm and only 400 feet east and directly downwind.

The proposed landfarm, designed to evaporate off toxic toluene, xylene and benzene (also a known carcinogen), only 400 feet to the west and up-wind clearly makes both our property and the Vavra property unfit for reasonably enjoyment and habitation being subject to the toxic evaporated product 24 hours a day and without surcease.

Further, the operating requirements make no provision for assurance that the introduced solids, i.e. crude oil saturated dirt and dust will be contained on the proposed landfarm particularly when subject to the 50 M.P.H. (and higher) winds that often sweep the top of that mesa. The proposed operating requirements laid down by your Department further exacerbate this certain problem by

demanding that the deposits by fluffed up by discing every two weeks.

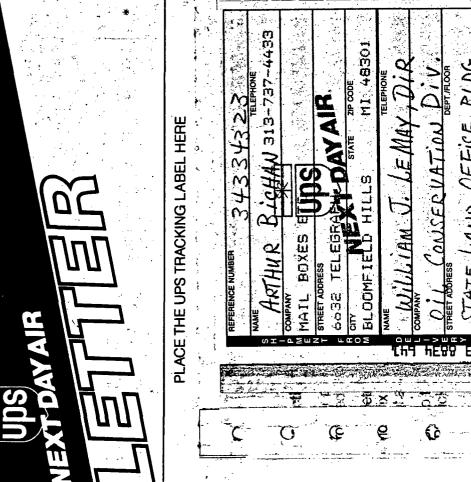
We again request a public hearing before issuance of the proposed permit.

Respectfully,

Inthus H. Bul
Arthur H. Bichan

C.C.: Tierre Environmental Company, Duc.

Place parcel register tape or stamp UPS shipper number below.



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HYNES, HALE, STHROWER

A T T O R N E Y S A T OLL SON DIVISION
THOMAS J. HYN

THOMAS J. HYNES • J. KEVIN HALE • LARRY T. THROWER

1000 West Apache

Farmington, New Mexico 87401

OFF.: 505/325-8813 FAX: 505/326-6177 192 AUR 4 AM 8 50

July 30, 1992

GOPY

Arthur H. and Inez Bichan 6750 Colby Lane Bloomfield Hills, MI 48301

Re: Application of Tierra Environmental Company, Inc. for Land Farm in San Juan County, New Mexico

Dear Mr. and Mrs. Bichan:

This office represents Tierra Environmental Company, Inc. reference their permit for a land farm, which I understand is in proximity to real property which you have purchased in San Juan County, New Mexico. I have reviewed the various items of correspondence written by you and the reply letters from the Oil Conservation Division. I note in your letter of July 17, 1992, your comments that you have attempted to avoid the law and lawyers since your retirement, and I certainly echo that sentiment. This letter is written in an effort to address your concerns and to, hopefully, persuade you to withdraw your protest and give my clients an opportunity to demonstrate the safety and feasibility of their project. I attach a letter which I have requested my clients to draft describing the project and the method of operation. My additional comments are as follows:

- 1. The purpose and intent of the farm is environmental remediation. It is designed to reduce pollutants and restore soil to a safe and usable medium. The technology has been successful in the past and my clients feel it will minimize harm to the environment rather than increase that harm.
- 2. The project from start to finish is required by State law to be monitored, supervised, and in essence operated per the guidelines and directives of the Oil Conservation Division of the State of New Mexico. As the attached letter indicates, the amount of contaminated soil and the method of remediation are monitored in an ongoing fashion and regulated so as to minimize the airborne and soil related pollutants. As with all contaminated or polluted material, they must be handled and dealt with somewhere.

Arthur H. and Inez Bichan July 30, 1992

- 3. The principals in this corporation are long time Farmington residents and have a reputation as honest businessmen and concerned citizens. This is not a scheme to pollute a vast area and walk away. It is designed as a long-term, ongoing method of remediating soil. My clients desire to be good neighbors, both to you, the surrounding residents and the community as a whole.
- 4. While your protests will certainly impose upon my clients a good deal of delay, costs and expense, I do not believe the ultimate outcome will be different. The permit process requires compliance with State law and, from my review of the application and issuance of the permit, it complies in all respects. Many of your concerns are matters which are not addressed in the permit process and are not relative to issuance or non-issuance of the permit. We believe the protest will only result in a good deal of costs and headaches to everyone involved, resulting in the ultimate issuance of the permit at some later date.

It is hoped that my comments and the attached letter from Tierra will address and alleviate your concerns. Being an attorney, I am certain that you are aware that the mere issuance of the permit and operation of the farm itself in no way infringes or impairs your legal rights to seek damages or injunctive relief should you feel at a later date that the farm is not being operated in a safe and reasonable manner, or has unreasonably affected the value of your property or the ability to utilize it in the fashion you desire.

Would you please consider the matters contained herein and advise if you feel they have merit. If we can reach an acceptable resolution, please contact me at your convenience.

Sincerely yours,

HYNES, HALE & THROWER

J. Kevin Halle

JKH: nh

cc: Client

Oil Conservation Division

Rep. Darla Welles

TIERRA Environmental Company, Inc. 909 West Apache Farmington, New Mexico 87413 (505) 325-0924

July 27, 1992

Mr. Arthur Bichan 6750 Colby Lane Bloomfield Hills, Mi 48301

RE: TIERRA LAND FARM OPERATION:

Dear Mr. Bichan:

I am in receipt of your letter to OCD of July 17, 1992. By now you should have been notified by OCD as to what action they are taking with respect to the Land Farm Operation.

In your letter you outlined what Geoff McMahon has told you about the operation. He has told you the truth. Tierra owns approximately eighty acres of land adjacent to your parcel on Crouch Mesa. Twenty-one acres, more or less is being permitted for a soils remediation land farm. With in the twenty-one acre facility is a bio-remediation cell. It is the part of the property that is closest to your land. It will be moistened and bio-technology applied thereto. You have been misinformed as to soils being stacked one layer upon the other. It is permissible for the land farm to do that, however, state regulations require, that the soils have to be remediated to less than 100 parts per million ppm total petroleum hydrocarbons (TPH), less than 50 ppm Benzene, Toluene, Ethanes and Xylenes (BTEX) and further that Benzenes cannot exceed 10 ppm. Soils at that level are considered by the State and EPA to be clean. Those regulations and standards must be met and verified to the State by an independent EPA approved laboratory analysis, before another layer of soils can be placed on top. Soils can only be placed in six inch lifts, one at a time until they are remediated to the required levels. OCD must be notified and those standards met before another six inch lift is placed on top of the soils that are in place. Our plans do not include stacking of soils in most instances. It is economically not feasible. We plan to remove most soils following successful remediation for transportation back to the oil and gas fields to use as backfill in the excavations made removing contaminated soils. It will be a cyclic The land farm facility will not be permitted to accept UST waste ie: gasoline contaminated soils. Each case wherein soils contaminated with produced gasoline would be taken to the land farm facility, the OCD must give individual approval.

Mr. Arthur Bichan July 27, 1992 Page two

Regarding the issue of blowing dust, we have offered and it will be OCD's decision whether we can moisten the other areas of the facility. We don't want blowing dust any more than you do. The existing pipe yard located to the north west of both your property and ours and the county road that divides our properties can create enough dust. OCD's concern about moisture however is that it could enhance leaching of contaminants to the underlying soils. That is why in our application, Tierra only asked for one bio-remediation cell. We must prove our technology is effective and safe. I am sure when we can successfully demonstrate that no leaching will occur, OCD will approve the addition of moisture in limited quantity to the other areas of the facility.

I have enclosed a copy of the conditions imposed by OCD regarding our land farm. Tierra had agreed to them prior to your objections. They will explain further just what the land farm can and cannot do.

Regarding the issue of air quality, emissions from the landfarm will be no greater than oil and gas facilities in the basin including the existing gas production wells adjacent to both our properties. It is clear from your most recent letter to the Director of OCD that you were operating under some serious misconceptions based on what information you received second hand.

Just for the record, Tierra is owned by Brewer Associates, Engineers and Surveyors (Mr.Cheney's firm), Geoff McMahon, myself (the former Bloomfield City Manager) and Bill Rippetoe.

Brewer Associates has been a reputable engineering firm in the San Juan Basin since 1962. Richard Cheney is an engineer and has considerable experience with the oil and gas industry. Bill Rippetoe has a Masters Degree in Chemistry and Education and has been in the oil and gas industry since the late 1960s'. Geoff as you know has many diverse interests. I had been in government service for several years, in several states, public safety and management. My contribution to the organization is handling the regulatory matters.

I hope this information is helpful and will clear the air. We would like to be good neighbors.

Sincerely,

Phillip C. Nobis
Vice President

Risk Management

(enclosures)

1. Tierra OCD Rules

ATTACHMENT TO OCD 711 PERMIT APPROVAL TIERRA ENVIRONMENTAL INC. COMMERCIAL LANDFARM

(August 11, 1992)

LANDFARM OPERATION

- 1. All contaminated soils received at the facility will be spread and disked within 72 hours of receipt.
- 2. Soils will be spread on the surface in six inch lifts or less.
- 3. Soils will be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants.
- 4. Successive lifts of contaminated soils will not be spread until a laboratory measurement of Total Petroleum Hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), and the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and the benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations will be maintained at the facility. Authorization from the OCD will be obtained prior to application of successive lifts.
- 5. Only solids which are non-hazardous by RCRA Subtitle C exemption or by characteristic testing will be accepted at the facility. Solids from operations not currently exempt under RCRA Subtitle C or mixed exempt/non-exempt solids will be tested for appropriate hazardous constituents. Test results must be submitted to the OCD along with a request to receive the non-exempt solids, and a written OCD approval (case specific) must be obtained prior to disposal. Any non-oilfield wastes which are RCRA Subtitle C exempt or are non-hazardous by characteristic testing will only be accepted on a case-by-case basis and with prior OCD approval.
- 6. Comprehensive records of all material disposed of at the facility will be maintained at the facility. The records for each load will include: 1) the origin, 2) analysis for hazardous constituents if required, 3) transporter, and 4) exact cell location and method of remediation.
- 7. Bio-remediation through the application of microbes will only be permitted in the designated 1-acre area. The microbes will be mixed with water and applied to the contaminated soils. There will be no ponding, pooling or run-off of water allowed during the application phase or afterwards. Any change in the composition (ie. chemical additives), process or location of the bio-remediation program must recieve prior OCD approval.
- 8. No free liquids or soils with free liquids will be accepted at the facility.

TREATMENT ZONE MONITORING

- 1. A treatment zone not to exceed two (2) feet beneath the land farm will be monitored. A minimum of one random soil sample will be taken from each individual cell six (6) months after the first contaminated soils are received in the cell and then annually thereafter. The sample will be taken at two to three (2-3) feet below the native ground surface.
- 2. The soil samples will be analyzed for total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) using approved EPA methods.
- 3. After obtaining the soil samples the boreholes will be filled with an impermeable material such as bentonite cement.
- 4. Any cells that have moisture added to them will be analyzed on a quarterly basis following the requirements above.

REPORTING

- 1. Analytical results from the treatment zone monitoring will be submitted to the OCD Santa Fe Office within thirty (30) days of receipt from the laboratory.
- 2. The OCD will be notified of any break, spill, blow out, or fire or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.

BOND

Pursuant to OCD Rule 711 a surety or cash bond in the amount of \$25,000, in a form approved by the Division, is required prior to commencing construction of the commercial surface disposal facility.

CLOSURE

When the facility is to be closed no new material will be accepted. Existing soils will be remediated until they meet the OCD standards in effect at the time of closure. The area will then be reseeded with natural grasses and allowed to return to its natural state. Closure will be pursuant to all OCD requirements in effect at the time of closure.

Exhibit 'A' Case No. 10539 Order No. R-9772

STATE OF NEW MEXICO



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING

July 21, 1992

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

Mr. Richard P. Cheney, President Tierra Environmental Company, Inc. 909 West Apache Farmington, NM 87401

RE: Tierra Environmental Commercial Landfarm Application

San Juan County, NM

Dear Mr. Cheney:

Enclosed is approval of *Tierra Environmental Company*, *Inc.'s* application for a commercial landfarm under Division Rule 711. Please notice that the approval letter is dated August 11, 1992, and it is not effective until that date.

As you know Arthur and Inez Bichan have filed a protest and request for hearing on your application. Enclosed is a copy of the letter to them advising them of the approval and of their right to file a petition for hearing to rescind the approval. If they do so, the burden will be on them to show why the application should not be approved.

If they do not file their petition before August 10, 1992, your approval will become effective, and you may begin operation. If they do file their petition, your approval will be suspended.

Sincerely,

Roger Anderson,

Environmental Bureau Chief

Exhibit 'A''
Case No. 10539
Order No. R-9772
Page 2



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



GOVERNOR

ANITA LOCKWOOD

August 11, 1992

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

CERTIFIED MAIL
RETURN RECEIPT NO. P-670-683-652

Mr. Richard P. Cheney, President Tierra Environmental Company Inc. 909 West Apache Farmington, New Mexico 87401

RE: Tierra Environmental Commercial Landfarm Application OCD Rule 711 Permit Approval

Dear Mr. Cheney:

The permit application for the Tierra Environmental Commercial Landfarm located in the NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico, is hereby approved in accordance with OCD Rule 711 under the conditions contained in the enclosed attachment. The application consists of the original application dated April 13, 1992, and the materials dated June 3, 1992 and June 22, 1992, submitted as supplements to the application.

The operation, monitoring and reporting shall be as specified in the enclosed attachment. All modifications and alternatives to the approved landfarming methods must receive prior OCD approval. You are required to notify the Director of any facility expansion or process modification and to file the appropriate materials with the Division.

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

Please be advised that all tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted or otherwise rendered nonhazardous to migratory birds.

If you have any questions, please do not hesitate to contact Kathy Brown at (505) 827-5884.

Sincerely,

William J. LeMay

Director

WJL/kmb

Attachment

xc: Denny Foust, OCD Aztec Office

Exhibit 'A' Case No. 10539 Order No. R-9772 Page 3

ATTACHMENT TO OCD 711 PERMIT APPROVAL TIERRA ENVIRONMENTAL INC. COMMERCIAL LANDFARM (August 11, 1992)

LANDFARM OPERATION

- All contaminated soils received at the facility will be spread and disked within 72 hours of receipt.
- 2. Soils will be spread on the surface in six inch lifts or less.
- Soils will be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants.
- 4. Successive lifts of contaminated soils will not be spread until a laboratory measurement of Total Petroleum Hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), and the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and the benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations will be maintained at the facility. Authorization from the OCD will be obtained prior to application of successive lifts.
- 5. Only solids which are non-hazardous by RCRA Subtitle C exemption or by characteristic testing will be accepted at the facility. Solids from operations not currently exempt under RCRA Subtitle C or mixed exempt/non-exempt solids will be tested for appropriate hazardous constituents. Test results must be submitted to the OCD along with a request to receive the non-exempt solids, and a written OCD approval (case specific) must be obtained prior to disposal. Any non-oilfield wastes which are RCRA Subtitle C exempt or are non-hazardous by characteristic testing will only be accepted on a case-by-case basis and with prior OCD approval.
- 6. Comprehensive records of all material disposed of at the facility will be maintained at the facility. The records for each load will include: 1) the origin, 2) analysis for hazardous constituents if required, 3) transporter, and 4) exact cell location and method of remediation.
- 7. Bio-remediation through the application of microbes will only be permitted in the designated 1-acre area. The microbes will be mixed with water and applied to the contaminated soils. There will be no ponding, pooling or run-off of water allowed during the application phase or afterwards. Any change in the composition (ie. chemical additives), process or location of the bio-remediation program must recieve prior OCD approval.
- 8. No free liquids or soils with free liquids will be accepted at the facility.

Exhibit "A"
Case No. 10539
Order No. R-9772
Page 4

TREATMENT ZONE MONITORING

- 1. A treatment zone not to exceed two (2) feet beneath the land farm will be monitored. A minimum of one random soil sample will be taken from each individual cell six (6) months after the first contaminated soils are received in the cell and then annually thereafter. The sample will be taken at two to three (2-3) feet below the native ground surface.
- 2. The soil samples will be analyzed for total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) using approved EPA methods.
- 3. After obtaining the soil samples the boreholes will be filled with an impermeable material such as bentonite cement.
- 4. Any cells that have moisture added to them will be analyzed on a quarterly basis following the requirements above.

REPORTING

- 1. Analytical results from the treatment zone monitoring will be submitted to the OCD Santa Fe Office within thirty (30) days of receipt from the laboratory.
- 2. The OCD will be notified of any break, spill, blow out, or fire or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.

BOND

Pursuant to OCD Rule 711 a surety or cash bond in the amount of \$25,000, in a form approved by the Division, is required prior to commencing construction of the commercial surface disposal facility.

CLOSURE

When the facility is to be closed no new material will be accepted. Existing soils will be remediated until they meet the OCD standards in effect at the time of closure. The area will then be reseeded with natural grasses and allowed to return to its natural state. Closure will be pursuant to all OCD requirements in effect at the time of closure.

Exhibit "B" Case No. 10539 Order No. R-9772

ATTACHMENT TO OCD 711 PERMIT APPROVAL TIERRA ENVIRONMENTAL COMPANY, INC. COMMERCIAL LANDFARM

LANDFARM OPERATION

- 1. All contaminated soils received at the facility will be spread and disked within 72 hours of receipt.
- 2. Soils will be spread on the surface in six inch lifts or less.
- 3a. Soils will be tilled a minimum of one time every two weeks (bi-weekly) to enhance biodegradation of contaminates. Methods suggested by the U.S. Soil Conservation Service should be utilized in the tilling of the soils which will reduce to the most possible degree the occurrence of natural wind erosion.
- 3b. Moisture shall be added to all contaminated soils received at the facility. The soils within each individual cell will be characterized using the Soil Survey of San Juan County, New Mexico, prepared by the United States Department of Agriculture, Soil Conservation Service, for the purpose of pre-determining amounts of moisture to be added to those particular soils, to (1) prevent emissions from volatile organic compounds, (2) enhance natural and artificial biodegradation, and (3) suppress erosion of contaminated soils from natural wind action.
- 3c. There will be no ponding, pooling or run-off of water allowed. Any ponding of precipitation will be removed within seventy-two (72) hours of discovery.
- 4. Successive lifts of contaminated soils will not be spread until a laboratory measurement of Total Petroleum Hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), and the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and the benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations will be maintained at the facility. Authorization from the OCD will be obtained prior to application of successive lifts.
- 5. Only solids which are non-hazardous by RCRA Subtitle C exemption or by characteristic testing will be accepted at the facility. Solids from operations not currently exempt under RCRA Subtitle C or mixed exempt/non-exempt solids will be tested for appropriate hazardous constituents. Test results must be

submitted to the OCD along with a request to receive the non-exempt solids, and a written OCD approval (case specific) must be obtained prior to disposal. Any non-oilfield wastes which are RCRA Subtitle C exempt or are non-hazardous by characteristic testing will only be accepted on a case-by-case basis and with prior OCD approval.

- 6. Comprehensive records of all material disposed of at the facility will be maintained at the facility. The records for each load will include: 1) the origin, 2) analysis for hazardous constituents if required, 3) transporter, and 4) exact cell location and method of remediation.
- 7. Bio-remediation through the application of microbes will only be permitted in the designated 1-acre area. The microbes will be mixed with water and applied to the contaminated soils. There will be no ponding, pooling or run-off of water allowed during the application phase or afterwards. Any change in the composition (ie. chemical additives), process or location of the bio-remediation program must recieve prior OCD approval.
- 8. No free liquids or soils with free liquids will be accepted at the facility.
- 9a. Disposal will only occur when an attendant is on duty. The facility will be secured when no attendant is present.
- 9b. The facility will have a sign at the entrance. The sign will be legible from at least fifty (50) feet and contain the following information: (a) name of the facility, (b) location by section, township and range, and (c) emergency phone number.
- 9c. An adequate berm will be constructed and maintained to prevent run-off and run-on for that portion of the facility containing contaminated soils.

TREATMENT ZONE MONITORING

1. A treatment zone not to exceed three (3) feet beneath the landfarm will be monitored. A minimum of one random soil sample will be taken from each individual cell, with no cell being larger than five (5) acres, six (6) months after the first contaminated soils are received and quarterly thereafter. The sample will be taken at two (2) or three (3) feet below the native ground surface.

- 2. The soil samples will be analyzed for total petroleum hydrocarbons (TPH) using an OCD-approved field method. If TPH is detected, then a laboratory analysis will be conducted for Volatile Aromatic Organics (BTEX) using approved EPA methods. Immediate remedial measures will be taken and no additional contaminated soils will be placed in the cell until testing indicates that the TPH is below 100 ppm, BTEX is below 50 ppm and benzene, if any, is below 10 ppm.
- 3. After obtaining the soil samples, the borehole will be filled with an impermeable material such as bentonite cement.
- 4. Annually, samples obtained from the treatment zones will be collected and a laboratory analysis conducted using approved EPA methods in accordance with the procedures outlined in item 1. The samples will be analyzed for TPH, BTEX, general chemistry, and heavy metals.
- 5. One (1) background soil sample will be taken from the center portion of the landfarm two (2) feet below the native ground surface prior to operation. The sample will be analyzed for TPH, BTEX, general chemistry and heavy metals using approved EPA methods and for TPH using an OCD-approved field method.

OTHER MONITORING

- 1. An OCD-approved device capable of measuring emissions of volatile organic compunds (VOC) will be kept at the facility at all times. A measurement of VOCs will be taken a minimum of four (4) times per working day, which will include one measurement upon opening and one measurement upon closing of the facility. Monitoring of VOCs will be recorded and include the date, time, location, and level measured. Records will be retained at the facility and made available for OCD inspection.
- 2. A particulate collector or similar device shall be kept in place and operational at the prevailing downwind side of the landfarm facility. The collector shall be examined daily and records will include time, date, location and level of particulate measured. Records will be maintained at the facility and made available for OCD inspection.

REPORTING

- 1. Analytical results from the treatment zone monitoring will be submitted to the OCD in Santa Fe within thirty (30) days in written form from Tierra Environmental Company with appropriate laboratory analysis included as may be required. Reports will be filed for both the field and laboratory analyses.
- 2. The OCD will be notified of any break, spill, blow out, or fire or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.

BOND

1. Pursuant to OCD Rule 711 a surety or cash bond in the amount of \$25,000, in a form approved by the Division, is required prior to commencing construction of the commercial surface disposal facility.

TRANSFERABILITY

1. Authority for operation of the landfarm facility shall be transferable only upon written application and approval by the Division Director.

CLOSURE

1. When the facility is to be closed no new material will be accepted. Existing soils will be remediated until they meet the OCD standards in effect at the time of closure. The area will then be reseeded with natural grasses and allowed to return to its natural state. Closure will be pursuant to all OCD requirements in effect at the time of closure.

OIL CONSER ON DIVISION

REC: /ED

6750 Colby Lane Bloomfield Hills, MI 48301

192 JUL 22 AM 8 49

July 17, 1992

Director
Oil Conservation Division
State Land Office Bldg.
P.O. Box 2088
Santa Fe, NM 87504-2088

RE: Application of Tierra Environmental Company, Inc. to operate a landfarm for redemption of soils contaminated with hydrocarbons on County Road 3500 on the top of Crouch Mesa just east of Farmington in San Juan County.

Sir or Madam:

Subsequent to my letter of June 10 to your office on the above captioned matter I received a copy of a letter addressed to a geologist at the "Energy Minerals and Natural Resources Department" - a copy is attached.

I take this opportunity to correct some serious implications that could be construed from that letter.

During my negotiations and prior to purchase, I found a new road running west from the 3100 road that appeared to be on the Morningstar holdings. I followed this road and found two newly leveled adjacent areas surrounded by embankments. There were two big machines present and some big tanks.

I contacted Geoff McMahon of Morningstar and asked him what was the intended use. He explained to me that it was to be a composting operation using manure from the race track. We discussed the fact that it was about a half a mile south and down the hill and three quarters of a mile southwest from the property in which I was interested. In that the prevailing wind is west, I was satisfied that the operation would not bother our enjoyment of the proposed property.

I then asked Mr. McMahon, point blank, did he then have any plans for any of the other property in the quarter section.

In reply to this direct question he did state that he and another man (he named him) that had been City Manager for, I think, Bloomfield were going to put in "a little soil reclamation project". He then explained contaminated soil from drill sights would be spread out and wetted down with water and bacteria would be introduced to devour the hydrocarbons. He asked if I was aware of the process and I told him that I had read of bacteria being used to clean up oil spills quite successfully. We discussed the facts that bacteria was highly successful in cleaning up hydrocarbons and that wetting the soil would avoid dust and blowing sane and seal the oil in and I was completely satisfied that such an operation would not unreasonably interfere with our quiet enjoyment of the nearby land.

I had every confidence then, as I have today, that Geoff McMahon told me the exact truth, at least as he had been told.

On June 8 we closed on the property. June 9 Glenn Vavra, owner of the property immediately east of my piece, stopped by our trailer at the campground and showed me a paper that had been tacked to a post at his entry. The paper was a copy of public notice of the land-farm and some irate comments on truck traffic, dust, etc..- it was not signed.

I told Mr. Vavra not to worry about it that the dirt would be wetted down and then sold off and moved away after it had been cleaned by the

bacteria.

He then said that he had just come from the "O.C.D." office in Aztec and they had said absolutely nothing about watering down the soil or using bacteria. He said he was told that contaminated soil would be spread out and then layered up, one layer on top of the other.

At this time, after I had purchased the property, was when I first discovered that Tierra really intended to construct a huge hydrocarbon

evaporator field and just let the sand and dust blow.

I closed my law office in 1968 and have assiduously avoided the law

and lawyers ever since.

The "... at least one book on environmental issues, concerning hydrocarbon emissions from automobiles" was, in fact, a twenty-eight page booklet entitled "The Emissions Control Bypass Manual" - How To Bypass the Emission Controls On Every '73 and '74 U.S. Automobile Engine. This hardly qualifies me as an "ecology nut".

In that the Tierra letter is nothing but a fallacious personal attack upon me, my methods and motives and totally ignores the basic questions i.e. (1) How is blowing dust and sand to be limited? (2) How much hydrocarbon will be given off? Does that exceed Federal and/or State limits? How are limits to be assured? - it would seem that they intend to operate in any fashion they wish and want no limits or records made.

That scares me and should certainly alert your office; The State Environmental Department; the State Health Department and the Federal

Environmental Protection Agency.

Minimally, the application demands a public hearing.

Respectfully,

Arthur H. Bichan

Copy To:

Tierra Environmental Company, Inc.

State Senator Donistorpe

State Representative Wells

U.S. Senators

U.S. Representatives

Director Burkhart-Department of Health

Director Esponosa-Environmental Department

Environmental Protection Agency-U.S.





TIERRA Environmental Company, Inc. 909 West Apache Farmington, New Mexico 87401

June 22, 1992

Ms. Kathy Brown, Geologist Energy Minerals and Natural Resources Department P.O. Box 2088 Santa Fe, New Mexico 87504

RE: Request for Public Hearing on Tierra Environmental Company, Inc., Landfarm Permit Application, by Mr. Arthur H. Bichan:

Dear Ms. Brown:

We appreciate your quick response, furnishing Tierra a copy of Mr. Bichans' letter, requesting a public hearing. According to the deed copy enclosed with the letter, Mr. Bichan purchased the property on or about June 8, 1992. Morningstar Corporation was the owner of record, when Tierra sent out the required notices, pursuant to OCD Rule 711, on April 15, 1992.

After reviewing the letter, I contacted the owner of Morningstar Corporation, Mr. Geoff McMahon. Mr. McMahon told me he did sell the land to Bichan on or about June 8. 1992. He further said that he had told Mr. Bichan all about the proposed landfarm, showed him its location in relationship to the land Mr. Bichan was interested in purchasing, prior to the sale. Enclosed is a letter from Mr. McMahon. Mr. McMahon is also one of the principal partners in Tierra.

Also enclosed is a letter from Ms. Claudine Riddle. She is the local Realtor who closed the transaction between Morningstar and Mr. Bichan. She says Mr. Bichan was aware of the landfarm before he made the purchase of the adjacent ten (10) acres. Ms. Riddle has no business interest in Tierra.

Mr. Robert Stanard, owner of San Juan Engineering, in Farmington, New Mexico and a Registered Professional Engineer himself, discussed the landfarm with Mr. Bichan, the day after Mr. Bichan bought the property. Enclosed please find Mr. Stanards letter. Mr. Stanard has no business interest in Tierra, nor is he associated with Richard Cheney also a Registered Professional Engineer and President of Tierra.

The above information appears to conflict with Mr. Bichans letter of protest.

I have personally obtained some additional information concerning Mr. Bichan. He is an attorney in the State of Michigan and claims to be an author, who has written at least one book on environmental issues, concerning hydrocarbon emissions from automobiles.

Ms Kathy Brown June 22, 1992 Page two

It appears to Tierra, that Mr.Bichan, purchased the property with full knowledge as to the landfarm and its method of operation. It is also quite clear that Mr. Bichan possessed sufficient knowledge regarding environmental issues to be able to make an intelligent decision as to whether or not he wanted to purchase land adjacent to our proposed facility.

Tierra respects the right of anyone to protest and ask for a public hearing, according to the laws of our state. We are however, suspicious of an out of state attorney and environmental author, who after having full knowledge of what plans Tierra had for the adjacent property, in advance, purchases the land and then files a protest.

I can only compare his actions to a person who after being told by an automobile dealer the vehicle he wants to buy is used and has a bad transmission, purchases the vehicle as is and then attempts to file a court action against the automobile dealer under the "Lemon Law".

As a point of information for the record, my wife Dorothy and I are currently dealing with Morningstar Corporation. We intend to purchase about five (5) acres between the Tierra landfarm and Mr. Bichans property, move a double wide onto the property and live there with our family. Dorothy is a former newspaper editor and currently a medical professional. I am a former City Manager, Public Safety Official and currently a principal partner in Tierra, an environmental company. We are well aware of what the proposed landfarm will be doing and feel perfectly safe living next to it.

Tierra hopes OCD will deny the request. We are anxious to proceed with permitting process and if successful be able to provide a much needed, environmentally sound service to our clients in the oil and natural gas industry.

However Mr. Bichans major complaint seems to be blowing dust and hydrocarbon emissions. If required by OCD, Tierra would commit to taking appropriate measures to limit dust and would further be willing to conduct some degree of limited air monitoring.

The only logical method to limit dust is the addition of moisture, which would require further OCD approval. Air monitoring is expensive, however an on-site program, requiring personnel to wear exposure badges and use a "sniffer" periodically, on a scheduled basis might serve the purpose.

Ms Kathy Brown June 22, 1992 Page three

Regarding Mr. Bichans statements about our Company President, Richard Cheney and his alleged powerful political clout, I can only say that, Tierra has followed the rules to the best of our ability, just like anyone else would have to do. This is America, even a politician has a God given right to earn a living. It might interest Mr. Bichan to know that Richard Cheney is a "Lame Duck". He did not seek re-election this year.

Thank you for your consideration and we hope this information is helpful.

Sincerely,

Phillip C.Nobis

Vice President

cc: Mr. D. Fost, Aztec OCD Office

Mr. Richard Cheney, Tierra President

Mr. Bill Rippetoe, V.P. Tech Ops Tierra

Mr. Geoff McMahon, Mornigstar / Tierra

Mr. Les Dow, Attorney for Tierra Mr. Arthur H. Bichan (Protestant)





ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

July 21, 1992

BRUCE KING GOVERNOR

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

CERTIFIED MAIL # P 670683656 - RETURN RECEIPT REQUESTED

Arthur H. and Inez Bichan 6750 Colby Lane Bloomfield Hills, MI 48301

RE: Application of Tierra Environmental for Landfarm

San Juan County, NM

Dear Mr. and Mrs. Bichan:

We have received your letter of June 10, 1992, in opposition to the above application, and your request.

The application of *Tierra Environmental Company, Inc.*, was filed with the Oil Conservation Division on April 14, 1992. *Tierra* complied with the notice requirements at the time of their application. You acquired your property on June 8, 1992, from Morningstar Corporation, through a deed signed by Geoff McMahon, who is also a principal in *Tierra*. You were advised of the application of *Tierra* at the time of your purchase and took with knowledge of the same.

The Division has reviewed the application and finds that it is approvable with certain operating requirements, a copy of which is attached. The approval is suspended for twenty days from this date. You may within that twenty day period file a petition for hearing to request recision of the approval within that time. If you so file, the hearing will be docketed at the next available hearing date, usually within four weeks. At such hearing it will be your burden to prove that the application should not be approved <u>under the rules and regulations of the Division</u>. Land use considerations are not a matter which the Division can consider.

If we do not receive your application for hearing on or before close of business on August 10, 1992, the approval of the permit will become effective.

Sincerely,

William J. LeMay,

Director

cc: Tierra Environmental



OIL CONSERVE ON DIVISION

TIERRA Environmental Company, Inc. RECEIVED 909 West Apache Farmington, New Mexico 87402 JUN 24 AM 8 39

June 22, 1992

Ms. Kathy Brown, Geologist
Energy Minerals and Natural Resources Department
P.O. Box 2088
Santa Fe, New Mexico 87504

RE: Request for Public Hearing on Tierra Environmental Company, Inc., Landfarm Permit Application, by Mr. Arthur H. Bichan:

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Ms Kathy Brown June 22, 1992 Page two

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Ms Kathy Brown June 22, 1992 Page three

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Thank you for your consideration and we hope this information is helpful.

Sincerely,

Phillip C.Nobis Vice President

cc:

Mr. D. Fost, Aztec OCD Office

Mr. Richard Cheney, Tierra President

Mr. Bill Rippetoe, V.P. Tech Ops Tierra

Mr. Geoff McMahon, Mornigstar / Tierra

Mr. Les Dow, Attorney for Tierra

Mr. Arthur H. Bichan (Protestant)

For "Land Sake" . . . Buy Land R laudine June 19. 1992 To whom it may (oncom: Withen Bicken and Ris Wife Jellin love With and sunchased 10 Hos Deland from George MoMahon on Crouch Mesa. Contheer Was a wary Mithodian Harchusen. He Cheeked everythering out herisalf- Was On the land talking to Many proper like Inspectour - Untractor ite They, he and his Wife , Joth Knew this Was thien dream place When we found it they were home 30 days), Orthur was very empressed With Deoff and his honestry- He told me obout subsetting Duff had told him including the Fleth! Os We talked I ask, him of that was a Problem - He said no " Le gest Just Des Checkeny I did believe be Cheeked subnitting best! after all be in very knowledgealle and is affordssinal posson - Petreis Langer and han sold Real State. I would treest him to by Very Complete with his inspectioning

South Brake, Own

Land Development

PHONE (505) 325-2435

P.O. DRAWER 9 FARMINGTON, NEW MEXICO 87499 N. GEOFF McMAHON President

June 18, 1992

Tierra Environmental, Inc. 909 West Apache Farmington, NM 87401

ATTENTION: Mr. Richard Cheney

President

Dear Sir;

On Monday the 8th of June, Mr. Arthur Bichan purchased 10 acres from us in the SE $\frac{1}{4}$ of S2T29NR12W.

Before he purchased the property, I discussed with him the proposal that a soil remedial land farm was to be installed west of his property and on the other side of the road:

I also told him that there was a composting facility on the SW corner of SE $\frac{1}{4}$ S2T29NR12W.

I was very careful to explain to him about these facilities before he purchased the property.

Yours Faithfully,

Geoff McMahon

SAN JUAN BOULEVARD FARMINGTON, NEW MEXICO 87401 TELEPHONE: 505-325-7535

June 19, 1992

Morningstar Corporation P. O. Drawer 9 Farmington, NM 87499

23868

ATTN: Geoff McMahon

Dear Mr. McMahon:

On June 9, 1992, I met with Mr. Bichan regarding several issues including the Vavra land trade and the effects of the potential land farm adjacent to the Bichan property on County Road 3100. Mr. Bichan inquired whether he would be affected by odors. I suggested he contact Mr. Cheney, the developer of the farm. I have since talked with other engineers more knowledgeable of land farming and am told these operations normally produce very little in the way of petroleum odor.

Please communicate this to Mr. Bichan or have him call me directly.

Very truly yours,

SAN JUAN ENGINEERS

Robert B. Stannard, Jr., P.E., P.S.

Vice President

RBS/ig

OIL CONSERVE ON DIVISION RECEIVED

6750 Colby Lane Bloomfield Hills, MI 48301

June 10, 1992

Director
Oil Conservation Division
State Land Office Bldg.
P.O. Box 2088
Santa Fe, NM 87504-2088

RE: Application of Tierra Environmental Company, Inc. to operate a landfarm for redemption of soils contaminated with hydrocarbons on County Road 3500 on the top of Crouch Mesa just east of Farmington in San Juan County.

Sir or Madam;

My wife and I have just been made aware of the above application and it particularly concerns us as we own 10 acres of land in the same ¼ section of Sec. 2, T29N, R12W, NMPM, San Juan County. In fact, our property is 300 yards east, downwind from the subject property, a copy of our deed is enclosed. We have just started to build a \$150,000 house.

The subject 40 acre plot is, nearly, the very highest point in the entire area and is therefore exposed to the most wind possible. The land slopes downward toward the west so the prevailing westerly wind does not blow across it as on level land, but blows against it's tilted face for maximum scrubbing action. Further, the land is so tilted to the west as to give it maximum exposure to the direct vertical rays of the hot afternoon sun.

It would appear that this site is perfect to guarantee the greatest possible evaporation of hydrocarbon into the atmosphere.

If minimum evaporation of hydrocarbon into the atmosphere was of even the slightest consideration, surely one would pick a site tipped toward the east so the hot afternoon sun would only strike it obliquely and well down out of, and shielded from, the wind.

It would also appear certain that the artificial introduction of sand will cause an excessive and unnatural amount of dust and blowing sand onto our downwind property.

During the past 20 years governmental regulations have caused the public to spend hundreds of millions, maybe billions, of dollars on devices to prevent hydrocarbons from cars. U.S. Congress is presently trying to decide whether every car should have an onboard capture system to capture evaporated hydrocarbon when you take the cap off and fill your gas tank. Apparently, escaping evaporated hydrocarbon is a health risk of major national concern. We would like to enjoy our property free from unnatural and excessive blowing sand and dust and particularly free from evaporated hydrocarbon.

I should also like you to consider that immediately east of our proposed house and also downwind of the subject landfarm, there lives Glenn Vavra, his young wife and their very young 4 children. Every effort should be made to protect these young children from the deleterious effects of evaporated hydrocarbon.

Because of the certainty of, or at least probability, of evaporated hydrocarbon from this site, the general public has a great deal at stake. Certainly a public hearing is called for with researched opinions of the State Environmental, Health and Human Services Department presented.

I am further advised that Mr. Dick Cheney, president of the applying company, is a powerful and long standing politician in this state and has served many years in the

Director
Oil Conservation Division
State Land Office Bldg.
P.O. Box 2088
Santa Fe, NM 87504-2088
Page 2

legislature. This fact alone should compel a public hearing.

We hereby request a public hearing and sufficient advanced personal notice as we are living in Michigan until our new house is built.

Respectfully,

Arthur H. Bichan Inay a. Brichan

Inez A. Bichan

AHB/tmm

Enclosure

P.S. We are sending copies to the State Senator and State Reprentative for this area; the Fed. E.P.A. and the three State Departments mentioned as soon as we learn their addresses.

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WARRANTY DEED

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Morningstar Corporation , for consideration , Arthur H. Bichan AND INEZ A. BICHAN , HUSBAND MICE W	paid, grant
MICHAEL H. BICHAEL AND DIEZ 14. OKHAN, HOSERDO MAS W	(FE
Those address is 6750 COLBY LOWE BLOOMFIELD HILLS, MI. 48	30/
he following described real estate in San Juan County County	, New Mexico:
SURFACE RIGHTS ONLY, IN AND TO:	
A 10.00 acre tract of land located within the Southeast & of	Section 2,
Township 29 North, Range 12 West of the N.M.P.M., San Juan C Mexico, more particularly described as follows:	ounty, New
· · · · · · · · · · · · · · · · · · ·	
Beginning at a B.L.M. brass capped monument dated 1974 as se east 1 corner of said Section 2; thence along the north line	of said
Southeast 2, North 89.28'09" West, 914.16 Feet to a point on	the
Southeasterly right-of-way of county road 3100, said road have	ving a
prescriptive right-of-way width of 60.00 feet; thence parall East line of said Southeast & south of 01'10'10" west 476.53	el with the
thence parallel to the North line of said Southeast & South	reet; Ro'28'no"
East, 914.16 feet to a point on the East line of said Souther	ast 1:
thence along said East line North 01'10'10" East, 476.53 fee	tothe
point of beginning.	
SELLER IS reserving a 30' access and utility easement on the	East
property line.	
SUBJECT TO: easements, reservations, and restrictions of reco	rd or in
place.	10 01 111
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rith warranty covenants. WITNESS MY hand and seal this 8th day of June	.92
Morningstar Corporation (Seal)	(Seal)
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Geal) Mc mahon (Seal)	(Seel)
by: Gaorf McMahon ————	(Deal)
ACKNOWLEDGMENT FOR NATURAL PERSONS	
TATE OF NEW MEXICO	
COUNTY OF SENSOR	
The foregoing instrument was acknowledged before me thisday of	, 19,
Oleman Name AD Draw Advanta Laboratoria	
(Name or Names of Person or Persons Acknowledging) Ly commission expires:	
Seal) Notary Public	
ACKNOWLEDGMENT FOR CORPORAT	ЮИ
FOR RECORDER'S USE ONLY STATE OF NEW MEXICO	
county of San Juan)	8th
The foregoing instrument was acknowledged before me	this.
day of Mc Maker	, 18/
Dy Disput of Officer)	12
Title of Officer) (Name of Corporation Acknow	ing male
as C.C. Corporation, on behalf of sai	. /
(Bliff Thorpotal Bar & C.	/
(Seal) Notary Public	uland

A COMP PUBLIC - STATE OF NEW MEXICS



TIERRA Environmental Company, Inc. 909 West Apache Farmington, New Mexico 87401

OIL CONSET RE
'92 JUN 15

June 3, 1992

Ms. Kathy M. Brown, Geologist
Energy Minerals and Natural Resources Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504

RE: Additional Information, TIERRA Environmental Company, Inc. Commercial Landfarm Request:

Dear Ms. Brown:

Pursuant to your request for additional information from Tierra, regarding it's Commercial Landfarm Application, the following is submitted for your review.

- 1. Tierra commits to the following conditions.
 - a. All contaminated soils received at the facility will be spread with in 72 hours of receipt.
 - b. Tierra will disk the soils in active cells a minimum of one time every two weeks biweekly to enhance biodegradation of contaminants
 - c. Successive lifts of contaminated soils will not be spread until a laboratory measurement of Total Petroleum Hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm). and the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and Benzene is less than 10 ppm. Comprehensive records of laboratory analysis will be maintained at the facility. Authorization from OCD will be obtained prior to application of successive lifts.
 - d. Tierra will accept solids that are non hazardous by RCRA Subtitle C exemption or by characteristic testing. Solids from operations currently exempt under RCRA Subtitle C or mixed exempt/non exempt will be tested for appropriate hazardous constituents. Test results will be submitted to the OCD along with a request to receive the non exempt solids, and a written OCD approval (case specific) will be obtained prior to disposal. Any non oilfield wastes which are RCRA Subtitle C exempt will only be accepted on a case by case basis following OCD approval.

Ms. Kathy M. Brown June 3, 1992 Page two

- e. Tierra proposes to dedicate a specific area to the treatment and remediation of tank bottoms, waxes and similar material requiring bio-technology in order to accelerate decomposition. OCD approval will be obtained prior to the addition of any substances to enhance biodegradation of the soils landfarmed.
- f. No free liquid or soils containing free liquids will be accepted at the facility.
- 2. Enclosed as exhibit A, please find a map showing all private residences with in one mile of the proposed facility, including a list of names and land status of resident.
- 3. Enclosed as exhibit B, please find the appropriate legal documents clarifying landownership of the proposed site.
- 4. In addition, to notifying OCD with in two working days of any spill or release, Tierra will also completely comply with OCD Rule 116, and will notify OCD of any break, spill blow out or fire and or any other circumstance that could constitute a hazard or contamination.
- 5. a., b., see attached explanation exhibit C, by Brewer Associates, Inc. Engineers.
 - c. The dirt roads in question will be discontinued. Cells will be identified by numbered stakes, in a grid pattern.
 - d. See attached explanation exhibit C, by Brewer, Associates.
 - e. The pipeline area will not be used for bio-remediation. Pipelines are 8" and 6" steel and contain natural gas. See exhibit C by Brewer Associates for additional information requested. Notification letter and return receipt attached.
 - f. Tierra does plan to place an office trailer on site. See exhibit By Brewer Associates for placement. Tierra does not plan to store chemicals on site that could cause contamination. Tierra does plan to install one four-hundred (400) barrel tank on the site, above ground that will contain fresh water. See exhibit C by Brewer Associates indicating placement and containment.
- 6. Tierras proposed Landfarm is designed to remediated contaminated soils and not transfer contaminants into the underlying native soil and / or ground water. Tierra will monitor a treatment zone not to exceed two (2) feet beneath the land farm. Tierra will commit to the following conditions;

Ms. Kathy M. Brown June 3, 1992 Page three

- a. A minimum of one random soil sample will be taken from each individual cell six (6) months after the first contaminated soils are received in the cell and then annually thereafter. The sample will be taken at two to three (2-3) feet below the native ground surface.
- b. The soil samples will be analyzed for total petroleum hydrocarbons (THP) and volatile aromatic organics (BTEX) using approved EPA methods. The results will be submitted to OCD Santa Fe Office with in thirty (30) days of receipt from the laboratory.
- c. After obtaining the soil samples the boreholes will be filled with an impermeable material such as bentonite cement.
- d. Any cells that have moisture added to them will be analyzed on a quarterly basis following the requirements above.

Pursuant to OCD Rule 711, Tierra Environmental Company, Inc. will provide to OCD proof of surety or cash bond in the amount of \$25,000.00, in a form approved by the Division, prior to commencing construction, following approval of the permit.

I hope this information is helpful and fulfills the requirements. If you have any additional questions please contact me at (505) 325-0924.

Sincerely,

Phillip C. Nobis Vice President

Phillip C. Lot.

cc: Denny Foust, OCD Aztec Office

BIO-REMEDIATION INFORMATION

Tierra intends to dedicate about one (1) acre of land for a bio-remediation cell. (See Plat by Brewer Associates)

The method we intend to implement is the use of manufactured (cultured) microbes. Dichlor Chemical Company Inc., 907 West Apache, Farmington, New Mexico will be our supplier. Dichlor is also owned by Richard Cheney. They have an exclusive agreement with South West Microbes, Kiseki Southwest, 305 Broadway, Tyler, Texas, who are the manufacturer. Dichlor is currently treating several wells in the area for paraffin control with similar microbe products.

It is difficult to outline specifically the program Tierra will use in the bio-remediation process. The quantity, degree of contamination and constituents of the material will dictate the exact amount of microbes used for remediation.

In general the program will involve adding a pre-determined quantity of the microbes to the contaminated material. A laboratory analysis will be necessary in order to determine the extent of contamination and nature of the material. That analysis will dictate the quantity of microbes added and the frequency. Water will be a necessary ingredient. Only enough water will be added to the cell, to keep the material moist. A process similar to watering flowers in a garden. Continuous irrigation will not be employed. We anticipate no run off from this process. The material will be disked or turned a minimum of once a week, again depending on the nature and extent of contamination.

Once remediation is complete, based on a lab analysis, we will notify OCD and probably ask for permission to remove the remediated soil from the cell for placement else where as the cell is so small.

It is Tierras' intention to be very selective regarding the material we will accept, not only for bio-remediation but through out the facility. Once we are satisfied and OCD is satisfied that our operation is a good one and is effective, Tierra will file for an expansion permit. We will own a total of eighty acres at the Crouch Mesa Site. We also have access to an additional eighty (80) acres if it becomes necessary to expand even further.

PCN

TIERRA ENVIRONMENTAL LAND FARM LOCATION & RESIDENCES WITHIN ONE MILE SE 1/4-SEC2-T29N-RI2W

GLEN VAVERA
STATUS: PURCHASING LAND
ON CONTRACT FROM
L. WOODARD

T 29N

O'M HOE I

(2)
GEORGE COLEMAN
SUNCO INC.
STATUS: MANAGERS QUARTERS

BREWER ASSOC. 9 JUNE 1992

EXLIBIT BORM

REAL ESTATE CONTRACT (Short Form)

This Contract, Made this	10th	day of	April		92 between under	signed
seller and undersigned pure MORNINGSTAR CORE P.O. BOX 9	haser, PORATION	TIERRA 909 W. Witnes	ENVIRON APACHE, seth:	MENTAL, INC. FARMINGTON,		
out, the following described						
SEE ATTACHED LEG				ACRES.		
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		200 00	0 00			
The agreed purchase pri						
(1) <u>\$ 1,000.00</u>	cash, in	cluding \$ 1	.000.00	Earnest Mo	oney, the receipt of which E	arnest
Money is hereby acknowledge	ed by seller to bin	d this Contra	ct of Sale.			
(2) \$ 199,000.00	balance as f	ollows:			-	
Cash or equivale a land farm on t title is taken b Oil Conservation	the propert by buyer.	y and s This co	tipulate ntract :	es that no wo s subject to	rk is done until approval of the	ıg .
Seller shall furnish a title gu and conditions, showing a g the title, seller shall have re- able time, this contract may Should purchaser fail or refu damages or pursue any other the pursuing of any other re-	good and merchal asonable time with at the option of use to comply with ar remedy afforde	ntable title in nin which to purchaser b the terms of	n seller. Sho cure same. l e terminated ! this contra	uld there be any va- f seller is unable to co and seller shall retur t, seller may retain	lid and meritorious objection ure said objection within a re in the earnest money to purch	eason- chaser.
Upon performance by pugood and sufficient warranty					make and deliver to purchs	iser 8
Deed shall be made sub	ject to the usual	restrictions	and reservat	ons shown of record	to	
Purchaser declares that representation made to pur- or as to its production.					judgment and not through e, future value, income there	
In Witness Whereof, bot	th parties have he	ereunto set ti	heir hands ti	e day and year herei	nafter written.	
TIERRA ENVIRONME	ENTAL, INC.		MOI	NINGSTAR COR	PORATION	
Phil No	Phi	l Nobis	. (Gerff m'mas	lan Geoff McMaho	on
(Termed nurcha	ser whether one o	r more)		(Termed seller	Whether one or more)	

LAND DESCRIPTION

A tract of land lying in the Southeast Quarter (SE1/4) of Section 2, T29N R12W, N.M.P.M., San Juan County, New Mexico, more particularly described as follows:

COMMENCING at the Southeast Corner of said Section 2;

THENCE: N89°52'00"W and along the south line of Section 2 for a distance of 477.17 feet

to a point of intersection with the centerline of County Road 5290 and the point

of beginning;

THENCE: CONTINUING along said section line and N89°51'57"W for a distance of

1508.39 feet to the southeast corner of the SW1/4 SW1/4 SE1/4;

THENCE: N01°23'59"E and along the east line of said SW1/4 SW1/4 SE1/4 for a distance

of 660.55 feet to the northeast corner of said SW1/4 SW1/4SE1/4;

THENCE: N89°45'55"W and along the north line of said SW1/4 SW1/4 SE1/4 for a

distance of 660.95 feet to the northwest corner of said SW1/4 SW1/4 SE1/4 and

a point on the north-south midsection line;

THENCE: N01°28'33"E and along said north-south midsection line for a distance of 1985.22

feet to a point on the east-west midsection line;

THENCE: S89°27'15"E and along said east-west midsection line for a distance of 1657.01

feet to a point of intersection with the centerline of the above said County Road

5290;

THENCE: ALONG the centerline of said County Road 5290 the following bearings and

distances, S61°30'11"W for a distance of 230.05 feet;

THENCE: S56°49'15"W for a distance of 172.58 feet;

THENCE: ALONG a curve to the left for a distance of 470.82 feet whose radius is 300.00

feet and has a chord of S11°51'39"W for a distance of 423.97 feet;

THENCE: \$33°05'57"E for a distance of 244.31 feet;

THENCE: S26°16'38"E for a distance of 118.69 feet;

THENCE: ALONG a curve to the right for a distance of 208.23 feet whose radius is 436.08

feet and has a chord of \$12°35'52"E for a distance of 206.26 feet;

THENCE: S01°04'56"W for a distance of 132.79 feet;

THENCE: ALONG a curve to the left for a distance of 285.69 feet whose radius is 486.36

feet and has a chord of \$15°44'45"E for a distance of 281.60 feet;

THENCE: \$32°34'25"E for a distance of 345.56 feet;

THENCE: \$29°20'45"E for a distance of 214.19 feet;

THENCE: \$25°43'26"E for a distance of 204.25 feet;

THENCE: S22°24'39"E for a distance of 283.62 feet;

THENCE: S25°22'20"E for a distance of 119.14 feet;

THENCE: S27°15'40"E for a distance of 76.83 feet to a point of intersection with the south

line of said Section 2 and back to the point of beginning. Said tract of land

contains 86.71 acres, more or less.



TIERRA Environmental Company, Inc 909 West Apache Farmington, New Mexico 87401

June 8, 1992

Mr. James Suil Gas Company of New Mexico P.O. Box 11899 Bloomfield, New Mexico 8413

RE: LAND FARM PERMIT APPLICATION FOR TIERRA ENVIRONMENTAL:

Dear Jim:

I appreciate the speedy response in having two of your men identify the lines on Crouch Mesa on Tuesday. Steve and his partner were very helpful.

Enclosed, please find Tierra Environmental Company Inc. Land Farm Permit Application to the New Mexico OCD. They require that the pipeline owner receive a copy of the application for review and comment if any.

If you or the Gas Company of New Mexico have any comments, direct them to The New Mexico Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504.

Tierra as you will see in the application, intends to accept soils contaminated with non hazardous oil field waste and to spread the soils on the land farm for remediation. There will be no excavation on or near the pipelines, nor will any heavy equipment be used. No structures will be constructed on or near rights of way.

If you have any questions from Tierra, please call me at (505) 325-0924.

Sincerely,



TIERRA Environmental Company, Inc. 909 West Apache Farmington, New Mexico 87401

June 8, 1992

Director of Right of Way Department El Paso Natural Gas Company P.O. Box 1492 El Paso, Texas 79978

Dear Sir:

Tierra Environmental Company, Inc., has applied to the State of New Mexico, Oil Conservation Division, (OCD), for a permit to operate a Land Farm which would receive soils contaminated with non hazardous waste generated as a result of oil and gas exploration, production or processing operations. Those wastes would be spread on top of the ground, according to OCD regulations in no more than six (6) inch lifts.

El Paso has two (2) natural gas pipelines on the property. Mr. Tim Jones of El Paso visited the site on June 4, 1992. According to Mr. Jones, the pipelines are about forty-three (43) inches deep. No heavy equipment will be used in the land farm operation. No excavation will be conducted. Nothing will be constructed with in the right of way.

Enclosed please find a copy of the Application as required by OCD.

Please direct any comments to The New Mexico Oil Conservation Division P.O. Box 2088, State Land Office Building, Santa Fe, New Mexico 87504.

If you have any questions of Tierra, please call (505) 325-0924.

Sincerely,

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(See Aeverse)

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Restricted Delivery Fee

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Return Receipt showing to whom. Date: and Address of Delivery

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PS Form 3800, June 1985

PS Form 3800,

OIL CONSERVE ON DIVISION RECEIVED

92 JUN 11 AM 8 53

6750 Colby Lane Bloomfield Hills, MI 48301

June 10, 1992

Director Oil Conservation Division State Land Office Bldg. P.O. Box 2088 Santa Fe, NM 87504-2088

RE: Application of Tierra Environmental Company, Inc. to operate a landfarm for redemption of soils contaminated with hydrocarbons on County Road 3500 on the top of Crouch Mesa just east of Farmington in San Juan County.

Sir or Madam;

My wife and I have just been made aware of the above application and it particularly concerns us as we own 10 acres of land in the same ¼ section of Sec. 2, T29N, R12W, NMPM, San Juan County. In fact, our property is 300 yards east, downwind from the subject property, a copy of our deed is enclosed. We have just started to build a \$150,000 house.

The subject 40 acre plot is, nearly, the very highest point in the entire area and is therefore exposed to the most wind possible. The land slopes downward toward the west so the prevailing westerly wind does not blow across it as on level land, but blows against it's tilted face for maximum scrubbing action. Further, the land is so tilted to the west as to give it maximum exposure to the direct vertical rays of the hot afternoon sun.

It would appear that this site is perfect to guarantee the greatest possible evaporation of hydrocarbon into the atmosphere.

If minimum evaporation of hydrocarbon into the atmosphere was of even the slightest consideration, surely one would pick a site tipped toward the east so the hot afternoon sun would only strike it obliquely and well down out of, and shielded from, the wind.

It would also appear certain that the artificial introduction of sand will cause an excessive and unnatural amount of dust and blowing sand onto our downwind property.

During the past 20 years governmental regulations have caused the public to spend hundreds of millions, maybe billions, of dollars on devices to prevent hydrocarbons from cars. U.S. Congress is presently trying to decide whether every car should have an onboard capture system to capture evaporated hydrocarbon when you take the cap off and fill your gas tank. Apparently, escaping evaporated hydrocarbon is a health risk of major national concern. We would like to enjoy our property free from unnatural and excessive blowing sand and dust and particularly free from evaporated hydrocarbon.

I should also like you to consider that immediately east of our proposed house and also downwind of the subject landfarm, there lives Glenn Vavra, his young wife and their very young 4 children. Every effort should be made to protect these young children from the deleterious effects of evaporated hydrocarbon.

Because of the certainty of, or at least probability, of evaporated hydrocarbon from this site, the general public has a great deal at stake. Certainly a public hearing is called for with researched opinions of the State Environmental, Health and Human Services Department presented.

I am further advised that Mr. Dick Cheney, president of the applying company, is a powerful and long standing politician in this state and has served many years in the

Director Oil Conservation Division State Land Office Bldg. P.O. Box 2088 Santa Fe, NM 87504-2088 Page 2

legislature. This fact alone should compel a public hearing.

We hereby request a public hearing and sufficient advanced personal notice as we are living in Michigan until our new house is built.

Respectfully,

Arthur H. Bichan Inag a. Brichan

Inez A. Bichan

AHB/tmm

Enclosure

P.S. We are sending copies to the State Senator and State Reprentative for this area; the Fed. E.P.A. and the three State Departments mentioned as soon as we learn their addresses.

WARRANTY DEED

Morningstar Corporation Arthur H. Bichan AND	INEZ A. BICHAN, HUSBAND AND W	LEE
hose address is 6750 COL3Y L	ove Broomfield Hius, MI. 4	830/
SURFACE RIGHTS ONLY, IN A 10.00 acre tract of Township 29 North, Rang	San Juan County County N AND TO: land located within the Southeast & of ge 12 West of the N.M.P.M., San Juan C rly described as follows:	Section 2
east & corner of said & Southeast & North 89.2 Southeasterly right-of-prescriptive right-of-East line of said South thence parallel to the East, 914.16 feet to a	brass capped monument dated 1974 as se Section 2; thence along the north line 28'09" West, 914.16 Feet to a point on way of county road 3100, said road haway width of 60.00 feet; thence parall heast ½ south of 01'10'10" west 476.53 North line of said Southeast ½ South point on the East line of said Southe line North 01'10'10" East, 476.53 fee	of said the ving a el with the feet; 89'28'09"
SELLER IS reserving a 3 property line.	0' access and utility easement on the	East
SUBJECT TO: easements, place.	reservations, and restrictions of reco	ord or in
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ith warranty covenants.		92
WITNESS MY hand and seal	this 8th day of June	
WITNESS MY hand and seal	this 8th day of June	
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STATE OF NEW MEXICO



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING GOVERNOR

ANITA LOCKWOOD CABINET SECRETARY

May 28, 1992

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

CERTIFIED MAIL RETURN RECEIPT NO. P-670-683-645

Mr. Richard P. Cheney, President Tierra Environmental Company Inc. 909 West Apache Farmington, New Mexico 87401

RE: Commercial Landfarm Request Tierra Environmental Company Inc. San Juan County, New Mexico

Dear Mr. Cheney:

The Oil Conservation Division (OCD) has received and is in the process of reviewing the above referenced application for an oil field related solids landfarm located in the NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico. The following comments and requests for additional information are based on review of the application, dated April 13, 1992. In order for the review process to continue the OCD requires the following information:

- 1. The OCD has stringent requirements for the operation of all OCD regulated landfarms. Although Tierra has committed to a large majority of the requirements, a commitment to the following conditions is required prior to OCD approval of commercial landfarms:
 - a. All contaminated soils received at the facility will be spread and disked within 72 hours of receipt.
 - b. Tierra has proposed to disk the soils "periodically based on the degree of contamination". Active cells will be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants.

Mr. Richard P. Cheney May 28, 1992 Page 2

- c. Sucessive lifts of contaminated soils will not be spread until a laboratory measurement of Total Petroleum Hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm) and the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations will be maintained at the facility. Authorization from the OCD will be obtained prior to application of successive lifts.
- d. Tierra has committed to accepting only solids that are non-hazardous by RCRA Subtitle C exemption or by characteristic testing. Solids from operations not currently exempt under RCRA Subtitle C or mixed exempt/non-exempt solids will be tested for appropriate hazardous constituents. Test results must be submitted to the OCD along with a request to receive the non-exempt solids, and a written OCD approval (case specific) must be obtained prior to disposal. Any non-oilfield wastes which are RCRA Subtitle C exempt will only be accepted on a case-by-case basis and with OCD approval.
- e. Tierra has proposed to dedicate a specific area "to the treatment and remediation of tank bottoms, waxes and similar material requiring bio-technology in order to accelerate decomposition". OCD approval must be obtained prior to the addition of any substances to enhance biodegradation of the soils landfarmed (ie. chemical additives, manure, nutrients, bugs, water ect.).
- f. No free liquids or soils with free liquids will be accepted at the facility.
- 2. The OCD is concerned about the impact of disposal facilities on private residences. Please submit a map showing all private residences within one mile of the proposed facility. Include the name and land status of the resident.
- 3. Tierra has indicated that they are the landowner of the proposed land farm facility. Records at the San Juan County Court House indicate that this property is owned by the Morning Star Corporation. Submit the appropriate legal documents to clarify who is the landowner of the property in question.
- 4. Tierra has committed to notifying the OCD within two (2) working days of any spill or release. Please note that OCD Rule 116 requires that "the Division be notified of any fire, break, spill, or blowout occurring at any injection or disposal facility ... such facility". The OCD requires Tierra to commit to notifying the Division of any fire, break, spill, or blowout in accordance with the provisions set forth in Rule 116.C.
- 5. The OCD has several questions concerning Tierra's plat of the facility (Exhibit B). Submit the appropriate information in response to the following questions:

Mr. Richard P. Cheney May 28, 1992 Page 3

- a. Tierra proposes to build a dike on the north and west side of the property to an elevation of 5881'. The facility plat shows the dike extending to an elevation of 5886' on the north and 5884' on the west. Clarify the conflicting data on the elevation and extent of the dike. The runoff calculations which you performed to justify a dike with a top elevation of 5881' do not coincide with either the top of the dike at 5881' or with the limit of the dike as shown on the plat. The calculations you performed to determint the holding capacity of a triangular shaped area in the northwest corner used a triangular height of 320' and a base of 570'. Clarify the runoff calculations and plat showing the exact location the top of the dike will extend to and the boundary of the triangular area used to calculate the holding capacity.
- b. What are the dimensions of the proposed ditch between the perimeter road and the berm? Will the ditch extend the same as, more, or less then the extent of the dike? Is the perimeter road and ditch inside of the fence on the facility property or on the outside of the fence?
- c. The plat shows several dirt roads crossing your property. Are these existing or planned roads? Will these roads be used to delineate the various cells. If not, how will the cells be delineated?
- d. In Section VII. of the application Tierra states that a specific area will be dedicated to biological technology for remediation. The reader is then referred to Exhibit B (facility plat) for design information. The OCD copy of Exhibit B has no design information on the proposed bio-remediation area. Please submit this information if Tierra wishes to receive approval to dedicate a specific cell for biological technology. Please be aware of the requirements above in 1.e. for the addition of any substances to enhance biodegradation.
- e. The plat indicates that a pipeline crosses your property. What is the size, depth, composition, and contents of the pipeline? What measures will Tierra take to guarantee that the pipeline will not be broken or damaged while disking soils? Who owns the pipeline? Tierra must provide the OCD with evidence that the pipeline owner has received a copy of your landfarm application. Please note that if Tierra proposes to add moisture to the soils to enhance biodegradation then the OCD will require a buffer zone on either side of pipeline for moisture addition.
- f. Does Tierra plan to construct any buildings (office, equipment storage, etc.) on the premises and if so where will they be located? Does Tierra plan to store or use any chemicals or materials which may cause contamination if spilled onto the ground surface? If so, what spill prevention/containment measures will be taken? Does Tierra plan to install any pits, ponds, or tanks (either above or below

Mr. Richard P. Cheney May 28, 1992 Page 4

ground) at the facility? If so, describe in detail and indicate what spill prevention/containment methods will be incorporated into the design.

- 6. Because a land farm is designed to remediate contaminated soils and not transfer contaminants into the underlying native soil and/or groundwater, the OCD requires land farms to monitor a treatment zone not to exceed two (2) feet beneath the land farm. A commitment to the following conditions is required prior to OCD approval of commercial land farms:
 - a. A minimum of one random soil sample will be taken from each individual cell six (6) months after the first contaminated soils are received in the cell and then annually thereafter. The sample will be taken at two to three (2-3) feet below the native ground surface.
 - b. The soil samples will be analyzed for total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) using approved EPA methods. The results will be submitted to the OCD Santa Fe Office within thirty (30) days of receipt from the laboratory.
 - c. After obtaining the soil samples the boreholes will be filled with an impermeable material such as bentonite cement.
 - d. Any cells that have moisture added to them will be analyzed on a quarterly basis following the requirements above.

Please note that OCD Rule 711 requires that before commencing construction, all commercial surface waste disposal facilities shall have a surety or cash bond in the amount of \$25,000, in a form approved by the Division.

Submission of the above requested information will allow the review process to continue. If you have any questions please do not hesitate to contact me at (505) 827-5884.

Sincerely,

Kathy M. Brown

Geologist

xc:

Denny Foust, OCD Aztec Office

rum. Brown

SUNCO APPLICATION

- Well	located @ 34-T30N-R12W TD 107', DTW 25'
and a second contract of the second contract	Elevation 5800' Water elevation 5775'
	State either a bandoned or mislocated based on
	Field inspection. North westerly gradient
$-m_n +$	Libella for la alcili

5% Bentonite Cement 95'-160/

-Mondon Wells for la	and fill
Well#1	<u> Well #2</u>
0'20' Soil	0-19' Soil
21-46 Sandstone (SS)	19-119' SS+Shale
47'-75' Shale	75' Groundwater
55' Groundwater (3-30-89)	120'-160' Surdstone
75' TD	160' TD
Prc asing 0-75'	/ Puc Casing 0-95'
Screen 50-75'	Screen 70'-95'
``	. /

NOTICE OF PUBLICATION

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

Notice is hereby given that pursuant to New Mexico Oil Conservation Commission Regulations, the following applications to construct and operate a commercial surface waste disposal facility have been submitted for approval to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

Tierra Environmental Company Inc., Richard Cheney, President, 909 West Apache, Farmington, New Mexico 87401, has submitted an application to construct and operate a commercial landfarm facility for remediation of hydrocarbon contaminated soils. The proposed facility is in the NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico. The facility is proposed to consist of a land management area where solids containing "non-hazardous" contaminants will be spread on the ground surface in six inch lifts or less and periodically stirred to enhance biodegradation of contaminants. The ground water most likely to be affected by any accidental discharges is at a depth in excess of 100 feet and has an estimated total dissolved solids content of approximately 800 mg/l.

549 Disposal, Inc., Dale Gandy, P.O. Box 827, Tatum, New Mexico 88267, has submitted an application to construct and operate a commercial surface disposal facility for brine water generated in conjunction with the production of oil and gas. The proposed location of the facility is the W/2 NW/4, Section 9, Township 18 South, Range 32 East, NMPM, Lea County, New Mexico. Produced water will be trucked to the facility and unloaded into skimmer tanks where the hydrocarbon free produced water will pass into storage tanks and then finally into a series of below grade, unlined, evaporation ponds. The permit application addresses the construction, operations, spill/leak prevention and monitoring procedures to be utilized at the facility. The ground water most likely to be affected by any accidental discharges is at a depth of 85 feet with a total dissolved solids content of approximately 750 mg/l.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30)

days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held., A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 7th day of May, 1992.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL

WILLIAM J. LEMAY, Director

NOTICE OF PUBLICATION STATE OF NEW MEDICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil. CONSERVATION DIVISION Notice is hereby given that pursuant to New Mencio Water Quality Control Commission Regulations, the following discharge plan renewal applications have been submitted to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

Tierra Environmental Company Inc., Richard Cheney, President, 909 West Apache, Farmington, New Mext Operate Cheney, President, 909 West Apache, Farmington, New Mextoo 87401, has submitted an application to construct and operate a commercial landfarm facility for remediation of hydrocarbon conteminated soils. The proposed facility is in the NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico. The facility is proposed to consist of a land management area where solids containing "non-hazardous" contaminants will be apread on the ground surface in shr inch lifts or less and periodically stirred to sections biodegradation of contaminants. The ground water most likely to be affected by any accidental discharges is at a depth in excess of 100 feet and has an estimated total discharges is at a depth in excess of 100 feet and has an estimated total discharges is at a depth in excess of 100 feet and has an estimated total discharges is at a depth in excess of 100 feet and has an estimated total discharges is at a depth in excess of 100 feet and has an estimated total discharges is at a depth in excess of 100 feet and has an estimated total discharges is at a depth in excess of 100 feet and has an estimated total discharges is at a depth in excess of 100 feet and has an estimated total discharges is at a depth in excess of 100 feet and has an estimated total discharges is at a depth in excess of 100 feet and has an estimated total discharges is at a depth in excess of 100 feet and has an estimated an excess of 100 feet and has an estimated an excess of 100 feet and has an estimated an excess of 100 feet and has an estimated an excess of 100 feet and has an estimated an excess of 100 feet and has an estimated an excess of 100 feet and has an excess o

549 Disposal, Inc., Dele Gandy, P.O. Box 827, Tatum, New Maxico 8257, has submitted an application to construct and operate a commercial surface disposal facility for brine water generated in conjunction with the production of oil and gas. The proposed location of the facility is the W/2 NW/4. Section 9, Township 18 South, Range 32 East, NMFM, Lac County, New Maxico. Produced water will be trucked to the facility and unloaded into sidmmer tanks where the hydrocarbon free produced water will pass into storage tranks and then finsilly into a series of belowgrade, unlined, evaportion ponds. The permit application addresses the construction, operations, spill/leak prevention and monitoring procedures to be utilized at the facility. The ground water most fillely to be affected by any accidental discharges is at a depth of 85 feet with a total dissolved solide content of approximately 750 mg/l.

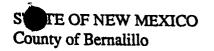
Any interested person may obtain further information from the Oil conservation Division and may submit.

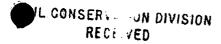
Any interested person may obtain further information from the Oil conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 5:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and intormation submitted at the hearing. GIVEN under the Seal of New Mexico Oil Conservation Commission

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on the 16th day of April, 1992. STATE OF NEW MEXICO

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
s/William J. LeMay, Director
Journal: May 20, 1992





Thomas J. Smithson being duly sworn declares and says that he is National Advertising manager of the Albuquerque Journal, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chaper 167, Session Laws of 1937, and that payment therefore has been made or assessed as court costs; that the notice, a copy of which is hereto attached, was published in said paper in the regular daily edition,

SS

for	times, the first publication being on the
publications on	2 Roman of Special son
BOND FILED WITH SERVICE AND FILED WITH SERVIC	Sworn and subscribed to before me, a Notary Public in and for the County of Bernalillo and State of New Mexico, this
BOND FILED WITH SECRETARY OF STATE	Statement to come at end of month.
CLA-22-A (R-12/92)	ACCOUNT NUMBER C 2 1184

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO, County of San Juan:	No	29501	•
CHRISTINE HILL being sworn, says: "That she is the NATIONAL AD MANAGER The Farmington Daily Times, a newspaper of general circulate published in English in Farms said county and state, and thereto attached LEGAL NOT:	of a daily tion ington nat the		
was published in a regular artissue of the said Farmington Times, a daily newspaper duly fied for the purpose within meaning of Chapter 167 of the Session Laws of the State of Mexico for ONE consecutive (days) (////) on the same date follows:	Daily y quali- the = 1937 New ve		
First Publication SUNDAY, MAY Second Publication	Y 17, 19	92	
Third Publication			
and the cost of publication		9.71	
Churtinald		· ·	
Subscribed and sworn to be this ZND day May June , 1992 . Notary Public, San Juan Con New Mexico	y of	;	
My Comm expires: JULY 3, 19	993		

COPY OF PUBLICATI

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

Notice is hereby given that pursuant to New Mexico Oil Conservation Commission
Regulations the following applications to construct and operate accommercial surface, waste disposal facility, have been submitted for approval to the Oil Conservation Division, State Land Office Building P.O. Box 2088 Santa Fe. New Mexico
87504-2088 Telephone (505) 827/5800

Tieng Emission ental Company Inc. Bichard Cheney, President, 909 West
Apache Farmington: New West 69740 1 has submitted an application to construct and operate a commercial landfarm facility for remediation of hydrocarbon contaminated soils. The proposed facility is in the NW/4 SE/4, Section 2. Township 29 North Range 12 West: NMPM: San Juan County, New Mexico 1 heriacility is proposed to consiste a land management area where soil at ingriging in a 2 ardous 50 maminants will be spread on the ground surface miss inchillits or less and periodically stirred to enhance biodegradation of contaminants. The ground water most likely to be affected by any accidental discharges is at a depth in excess of 100 feet and has an estimated total dissolved solids content of approximately 800 mg/1.

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GIVEN under the SeaL of New Mexico. Oil Conservation Commission, at Santa Ferri

at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fee New Mexico, on this 7th day of May, 1992.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION WILLIAM J. LEMAY, Director

SEAL

Legal No 29501 published in the Farmington Daily Times, Farmington, New Mexico on Sunday, May 17, 1992



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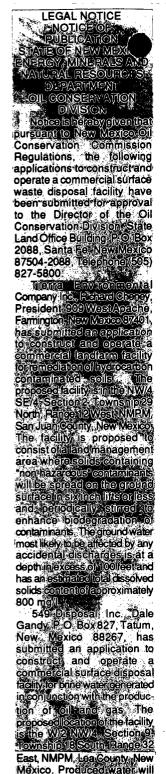
) ss.

)

COUNTY OF LEA

Joyce Clemens being first duly sworn on oath deposes and says that he is Adv. Director of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

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That the notice which is hereto attached, entitled
Notice Of Publication
and numbered
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entire issue of THE LOVINGTON DAILY LEADER and
not in any supplement thereof, once the supplement thereof, once the supplement thereof, on the supplement thereof.
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EXECUTATE NAME OF
May 15 19 92
and ending with the issue of
May 15 , 19 92
And that the cost of publishing said notice is the
sum of \$35.64
which sum has been (Paid) (Assessed) as Court Costs
Jagre Clemens
Subscribed and sworm to before me this
day of May 19 92
Notary Public Sea County New Mexico
My Commission Expires Sept. 28 19 94
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East, NMPM. Lea County, New Mexico. Produced water, will be trucked to the facility and unloaded into skimmer tanks where the hydrocarbon free produced water will pass into storage tanks and then finally into a series of below grade, unlined evaporation ponds. The permit application addresses the construction operations, spill/leak prevention, and monitoring procedures to be utilized at the facility. The ground water most likely to be affected by any accidental discharges is at a depth of 85 feet with a total dissolved solids contentiol approximately 750 mg/l

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the hearing.
GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe New Mexico, on this 7th day of May, 1992.

OIL CONSERVATION
DIVISION
WILLIAM J. LEMAY,

SEAL Director

Published in the Lovington Daily Leader May 15, 1992

RUNOFF CALCULATION FOR TIERRA ENVIRONMENTAL COMPANY LAND FARM

Area = 21.9 Acres

6 hr 100 year rainfall from NOAA Atlas 2 volume IV = 2.1 inches

21.9 Ac (43560 Sq. Ft./Ac) (2.1/12) = 166,944 Cu. Ft.

Estimate 50% runoff 166,949 Cu. Ft. (0.5) = 83,472 Cu. Ft.

Estimate 83,472 Cu. Ft. of runoff in 6 hour period for 100 year storm

Top of proposed dike as shown on attached topo map = 5,883 Maximum depth = 4.25 Ft.

Holding capacity of triangular shaped area in northwest corner of property at 5882 elevation = 0.5(220)(440) = 48,400 Sq. Ft.

Holding capacity @ 5882 elevation = 108,900 Cu. Ft.

Runoff estimated = 83,472 Cu. Ft.

Based on the above assumptions, the holding capacity is sufficient for the 6 hour 100 year storm and the 100 year 1 hour storm.

Affidavit of Publication

STATE OF NEW MEXICO)
) ss
COUNTY OF LEA	,

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State of New Mexico.
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May 15 , 19 92
and ending with the issue of
May 15 , 19 92
And that the cost of publishing said notice is the
sum of \$35.64
which sum has been (Paid) (Assessed) as Court Costs
Legge Clemens
Subscribed and sworm to before me this
day of
Notary Public, Sea County, New Mexico
Trotagy Tudate, Dea County, Ivew Mexico

es-17 18 Sept. 28 19 94

My Commission Expires-



Notice is hereby given that pursuant to New Mexico Oil Conservation Commission Regulations, the following applications to construct and operate a commercial surface waste disposal facility have been submitted for approval to the Director of the Oil Conservation Division; State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico. 87504-2088, Telephone (505) 827-5800:

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 7th day of May, 1992.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION WILLIAM J. LEMAY, Director

Published in the Lovington Daily Leader May 15, 1992.

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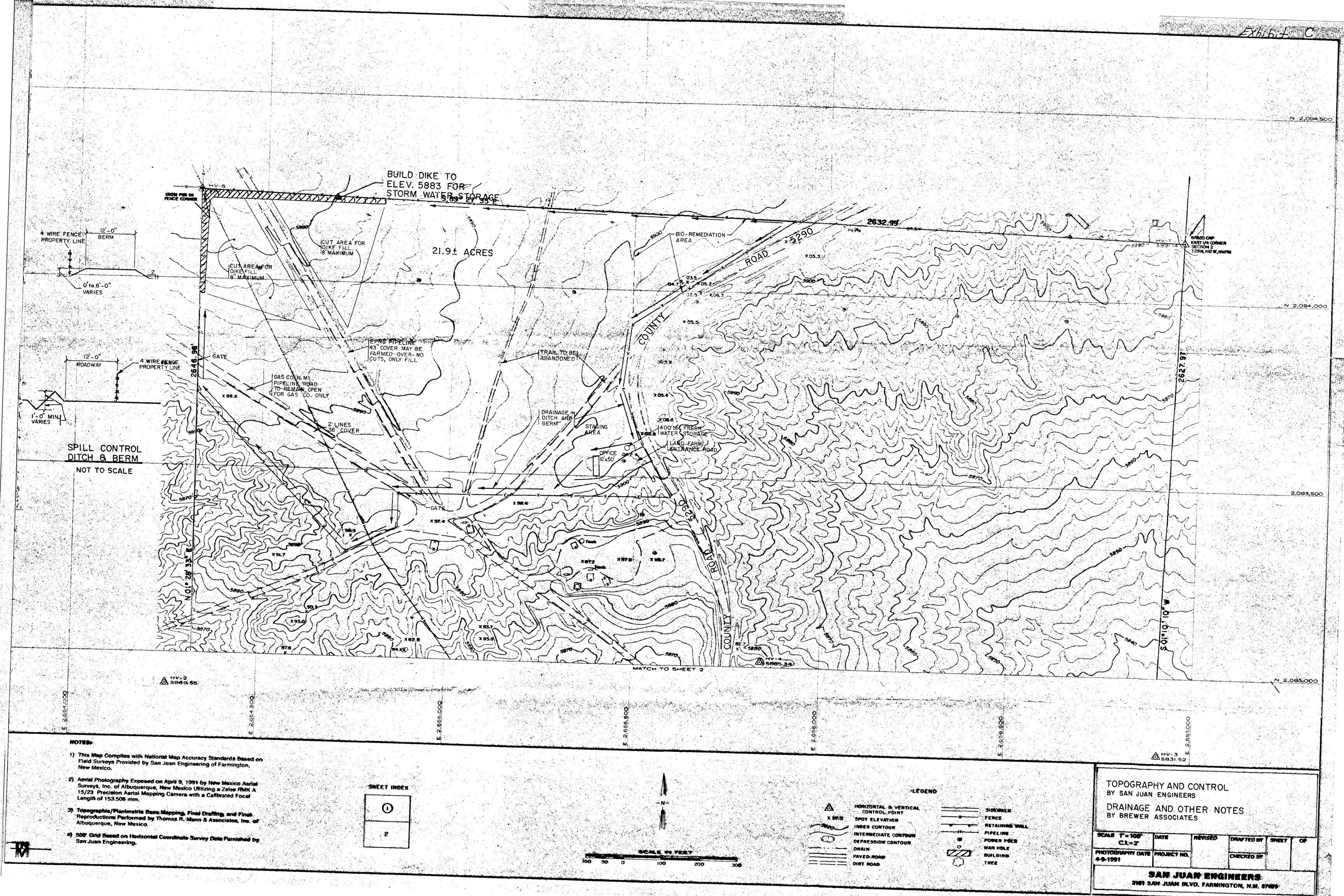
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Based on the above assumptions, the holding capacity is sufficient for the 6 hour 100 year storm and the 100 year 1 hour storm.



State of New Mexico Energy, Minerals and Natural Resources Department OIL CONSERVATION DIVISION

P.O. Box 2088 Santa Fe, NM 87501

RECEIVED

APR 1 4 1992

	OIL CONSERVATION DIV. APPLICATION FOR SURFACE WASTE DISPOSAL FACILITY SANTA FE
	(Refer to OCD Guidelines for assistance in completing the application.)
I.	Type: Produced Water Drilling Muds Treating Fluids Solids Other Land Farm
II.	OPERATOR: Tierra Environmental Company, Inc.
	ADDRESS:
III.	LOCATION: NW/ /4 SE /4 Section 2 Township 29 N Range 12 W Submit large scale topographic map showing exact location.
IV.	is this an expansion of an existing facility? \square Yes \square No
V.	Attach the name and address of the landowner of the disposal facility site and landowners of record within one-half mile of the site.
VI.	Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.
VII.	Attach detailed engineering designs with diagrams prepared in accordance with Division guidelines for the construction/installation of the following: pits or ponds; leak-detection systems; aerations systems; enhanced evaporation (spray) systems; waste treating systems and security systems.
VIII.	Attach a contingency plan for reporting and clean-up of spills or releases.
IX.	Attach a routine inspection and maintenance plan to ensure permit compliance.
X.	Attach a closure plan.
XI.	Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact freshwater.
XII.	Attach proof that the notice requirements of OCD Rule 711 have been met. (Commercial facilities only.)
XIII.	Attach a contingency plan in the event of a release of H ₂ S.
XIV.	Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/o orders.
XV.	(see attachments) CERTIFICATION
	I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District Office.

Date:

APPLICATION FOR SURFACE WASTE DISPOSAL FACILITY (Land Farm Operation) I. Type of Operation The major purpose of the facility is disposal of solids, semi-solids and Sludges, produced as a result of oil and gas production, exploration or processing activity. Only substances classified as non hazardous by RCRA Subtitle C exemption or by characteristic testing will be accepted at the facility. Those substances will be land farmed. They will be spread in no more than six (6) inch lifts, then turned

periodically, in accordance with a pre-determined schedule, based on the degree of contamination for each job. They will be spread and treated in an identified cell. A select cell area of the proposed land farm will be dedicated to biological technology for remediation

II. Operator

Tierra Environmental Company Inc., 909 West Apache Farmington, New Mexico 87401, Phone (505) 325-0924.

Contact Persons are:
Richard P. Cheney, President,
909 West Apache, Farmington, New Mexico 87401,
Phone (505) 327-3303
Phillip C. Nobis, Vice President,
702 Miller Street, Bloomfield, New Mexico 87413
Phone (505) 632-1404

III.Location of Facility

See Exhibit "A" which includes exact location and a topographic map identifying the facility location.

IV. Expansion Request

N A

V. Land Ownership

The land and facility are owned by:

Tierra Environmental Company, Inc. 909 West Apache Farmington, N.M. 87401

Land Owners of record, according to San Juan County Assessor information, with in one half mile are: U.S. Bureau of Land Management 1235 La Plata Highway Farmington, N.M. 87401 Nancy Jean Simmons 44 Canyon Pl. Mountain Home, Idaho 83647 Morning Star Corporation P.O. Box 9 Farmington, New Mexico 87499 George Coleman Box 3337 Farmington, New Mexico 87499 Lawarence Woodard c.o. Richard Patton P.O. Box 1725 Bloomfield, N.M. 87413 Eugene Watson et al 3107 Palomas Farmington, N.M. 87401 Raymond Condit c.o. James Hobbs P.O. Box 3455 Farmington, N.M. 87499 Charles Foutz et al 1550 Stapely # 35 Mesa, Arizona 50931 Fay Greer (Trustees) 2816 Kentucky Albuquerque, N.M. 87110 Description for the facility with diagram indicating VI. fences, pits, dikes on facility. (See Exhibit B, prepared by Brewer Associates, Inc. Engineers, Farmington, N.M.) VII. Engineering Information The Land Farm will accept the afore described materials. Soils will be spread in dedicated cells in no more than six (6) inch lifts. They will be turned by use of tractor and disc or similar equipment periodically based on the degree of contamination for exposure to the air. Sludges will be mixed with clean soils and treated as contaminated soils. A specific area of the land farm will be dedicated to the - 2 -

treatment and remediation of, tank bottoms, waxes and similar material requiring bio technology in order to accelerate decomposition.

(See Exhibit B, prepared by Brewer Associates, Inc. Farmington, N.M.) for design information.

An independent laboratory analysis of each operational cell will be conducted at least every thirty (30) days in order to monitor effectiveness of the particular remediation program.

VIII. Contingency Planning.

No spills are anticipated on location as liquid material will not be processed at this facility. Contingencies for flooding from rain fall are described in Brewer Associates Engineering information. Clean fill material is directly available to the facility located upon adjacent property owned by the operator, for use in the event of failure or berm or diking and clean up associated there with. Any liquid release resulting from flooding and subsequent run off in the event of dike failure will be mixed with clean fill material, removed from the area of the spill or release and returned to the land farm proper for remediation. Necessary dirt work equipment will be on location at all times as it will be used in the land farm operation continuously.

OCD will be notified with in two (2) working days of any spill or release.

IX. Routine Inspection & Maintenance Plan

The facility is expected to be a low maintainance operation. Berms, dikes, and fencing will be inspected weekly. Berms and dikes will be given special attention during unusually severe rain fall and inspected thoroughly following each event. Any required repairs will be conducted immediately.

X. Closure Plan

When the facility is to be closed, no new material will be accepted. Existing soils being remediated will be processed until they meet OCD standards, verified by independent laboratory testing. The area will then be seeded with natural grasses and allowed to return to its' natural state.

XI. Geological and Hydrological evidence demonstrating that disposal of oil field waste will not adversely impact fresh water.

The nearest surface water is the Animas River which is approximately two (2) miles north of the proposed land farm facility. According to information from the State Engineers Office in Albuquerque, N.M., there is a water well reported in SE4, SE4, of Section 34-T30N-R12. Total depth of the well is 107'. A copy of the well record is attached as Exhibit C. The well encountered water at 25 feet. The well is located at an elevation of about 5800 feet. The land farm which is located in the SE4 of Section 2. It's lowest point is at evlevation 5900 feet. We estimate distance to the nearest ground water to be at least 100 feet. No ground water is reported with in one mile of the land farm location. The land farm site is located at or near the highest point on a mesa and is fairly level with down gradient to the north west. Annual rainfall is light. Because of the elevation of the land farm it is well away from and out of the 100 year flood plain. Flood protection from excessive rain fall is outlined in the engineers information and consists of the construction of higher berming to the north west in order to contain any potential run off from the land farm itself.

- XII. Attached as Exhibit D, is a copy of notification letters sent to land owners and the certified receipts there fore as required by OCD Rule 711.
- XII. No Hydrogen Sulfide problems are expected. However, on site monitoring by means of chemical testing will be conducted. Chlorine donors and oxydizers in sufficent quantity will be kept on location for application in the unlikely event Hydrogen Sulfide is identified as being present.

XIV. Other Information

The land farm will be adequately signed. Any material brought to the land farm will be certified by laboratory analysis. Material brought to the land farm by the owner operator, will have been tested prior to delivery. Material brought to the land farm by others will be accompanied by a laboratory certification identifying the constituents or tested at the land farm prior to acceptance. All material not meeting RCRA standards as described in Subtitle C or by characteristic testing, will not be accepted. Accurate records identifying all materials accepted at the land farm, as well as identification of the exact cell location where the material is being remediated and by what methods will be kept on location. Those records as well as the facility will be open to inspection by OCD personnel at anytime during normal business hours.

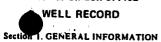
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Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.

STATE ENGINEER OFFICE





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April 13, 1992

George Coleman
P.O. Box 3337
Farmington, New Mexico 87499

RE: Permit Application to State of New Mexico Oil Conservation Division for operation of a Land Farm Facility:

Tierra Environmental Company, Inc. (TEC) is applying to the State of New Mexico Oil Conservation Division (OCD) for a permit allowing TEC to operate a Land Farm Facility. OCD Rule 711, requires that land owners, located with in one half mile of the proposed facility be notified of the pending application by the applicant.

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Please direct any comments to;

New Mexico Oil Conservation Division State Land Office Building P.O. Box 2088 Santa Fe, New Mexico 87504-2088

Thank you for your cooperation.

Sincerely,

April 13, 1992

Fay Greer (Trustees) 2816 Kentucky Albuquerque, N.M. 87110

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Charles Foutz et al 1550 Stapely # 35 Mesa, Arizona 50931

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Raymond Condit c.o. James Hobbs P.O. Box 3455 Farmington, N.M. 87401

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Eugene Watson et al 3107 Palomas Farmington, N.M. 87401

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April 13, 1992

Lawarence Woodard, c.o. Richard Patton P.O. Box 1725 Bloomfield, N.M. 87413

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April 13, 1992

Morning Star Corporation P.O. Box 9 Farmington, New Mexico 87499

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April 13, 1992

Nancy Jean Simmons 44 Canyon Pl. Mountain Home, Idaho 83647

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April 13, 1992

U.S. Bureau of Land Management 1235 La Plata Highway Farmington, N.M. 87401

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Please direct any comments to;

New Mexico Oil Conservation Division State Land Office Building P.O. Box 2088 Santa Fe, New Mexico 87504-2088

Thank you for your cooperation.

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RUNOFF CALCULATION FOR TIERRA ENVIRONMENTAL COMPANY LAND FARM

Area = 21.9 Acres

6 hr 100 year rainfall from NOAA Atlas 2 volume IV = 2.1 inches

21.9 Ac (43560 Sq. Ft./Ac) (2.1/12) = 166,944 Cu. Ft.

Estimate 50% runoff 166,949 Cu. Ft. (0.5) = 83,472 Cu. Ft.

Estimate 83,472 Cu. Ft. of runoff in 6 hour period for 100 year storm

Top of proposed dike as shown on attached topo map = 5,881 Maximum depth = 3.25 Ft.

Holding capacity of triangular shaped area in northwest corner of property = 0.5(320)(570) = 91,200 Sq. Ft.

Holding capacity @ 1' average depth = 91,200 Cu. Ft. Holding capacity @ 1.5' average depth = 136,800 Cu. Ft.

Runoff estimated = 83,472 Cu. Ft.

Based on the above assumptions, the holding capacity is sufficient for the 6 hour 100 year storm and the 100 year 1 hour storm.

