AP - 018

GENERAL CORRESPONDENCE

2001 - 1999



ALBUQUERQUE JOURNAL

TUESDAY, NOVEMBER 6, 2001

SECTION

CLASSIFIED OBITUARIES

WEATHER *12

Rancher, City Report Water Contamination

Concerns Over Mercury Surprise Oil Company

The Associated Press

JAL — City officials and an area rancher are worried that nearby oil spills pose a threat to their water supplies.

Several wells on Clay Osborn's ranch have already suffered oilfield contamination, Osborn said.

Fears of brine and mercury contamination have led Osborn and the city of Jal to write several letters to the Oil Conservation Division about the South Langlie Jal Unit.

The unit was purchased by Chap arral Energy of Oklahoma City last year. Although it didn't cause contamination, it is the owner and musi file the abatement or cleanup plan.

> "We do not feel that the proposed abatement plan is extensive enough to correct the existing damage and/or-prevent future contamination," Jal Mayor Mary Claiborne wrote in a letter to the conservation district. "If the current reported trend continues; we fear that there is definitely a possibility that our public water supply could be contaminated."

Although tests performed by the E.O.T.T. Pipeline Co. show that several wells on Osborn's ranch have high chloride levels, mercury has been detected only in a monitor well, Osborn said.

"If we do have it in the water, we cannot even sell our cattle," Osborn the said. "If we do have mercury in our mells, we're just hung." Robert Lang, environmental, the health and safety manager for the second se

Chaparral Energy, said this is the first he has heard about possible mercury contamination.

"I have yet to see anything regarding mercury contamination," he said. "That's a new one."

City officials say they don't believe the city's water has been affected, but it would be a good idea to do more extensive testing.

Representatives from the state Environment Department visited the Osborn ranch last week to collect water samples.

The department normally oversees only public water supplies, said Lisa Brown, a water specialist. She agreed to collect the samples because of Osborn's concern of mercury contamination.

Osborn has shut down most of his wells and has allowed stock ponds to dry up. He and his wife, Jeri,

have hauled water from town for drinking and cooking for more than a year.

"We're getting awful tired of hauling," he said.

Lang said it's not fair to single out one company. The land has been in use since the earliest days of oil drilling, he said.

"The problem is widespread. You can pin blame on just about anybody in that part of the country, be they in the oil business, the cattle business or any other business," Lang said. "Your soils are such that anything you spill on the ground will eventually more than likely wind up in the aquifer."

The Osborns say they aren't look ing for a big settlement. "What we're after is our land

"What we're after is our land restored and our water restored," Jeri Osborn said.



Contamination threatens the water supply of Jal area

Water

WOCS

Clay Osborn (above) looks over his ranch in Jal. Osborn claims his land and water are contaminated from oil companies. (Below left) A pipe found on Clay Osborn's ranch in Jal shows signs of dam-

age. Osborn claims that his land and water are contaminated as a result of oil companies.

AMMY MCKINLEY/ HOBBS NEWS-SUN

Jal rancher, city seek plan to clean up groundwater

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MARK R. FLETCHER HOBBS'MEWS-SUN Clay Osborn's pride in his ranch just north of Jal is evident from the decorative pond full of Japanese koi to the stylish interior of his home

Osborn and his wife, Jeri, however, worry how much longer they can continue to enjoy living on their nearly 2,000-acre ranch.

Several wells on his property have salted out from oilfield contamination and --- more alarm-- he has found evidence of mercury contamination.

Fears of brine and mercury contamination have led the City of Jal and the Osborns to write a series of letter to the Oil Conservation Division about the South Langlie Jal Unit. The unit, which was purchased from Bristol Resources Corporation by Chaparral Energy of Nesources of planton to you chapartal here yo oklahoma City last year, is the subject of an abatement plan recently filed by Chaparral. Both the City of Jal and the Osborns feel



the abatment plan is

not adaquate. So far, no mercury has been found in Jal's water supply, and it's unclear if it is even threatened, but the city fears that may well happen

The mercury was discovered in а monitor well installed by E.O.T.T.

Pipeline Company less than a mile from the Osborn house just north of Jal.

It is not, however, just Osborn's ranch that has become contaminated. The pollution, mostly brine and chlorides, has spread south into parts of Jal. Thus far, mercury has not been found off the Octuary not been found off the Osborn ranch and the city's water supply appears safe The City of Jal is concerned

enough about potential contamina-tion of its wells that city officials have drafted a letter to the Oil Conservation Division expressing their concern.

The letter, dated Oct. 9 and addressed to William Olson of the Oil Conservation Division from Jal Mayor Mary C. Claiborne, expresses support for several property owners who have been affected by the con-tamination and criticizes the abatement plan.

"We do not feel that the proposed abatement we us not rest that the proposed abatement plan is extensive enough to correct the existing damage and/or prevent future contamination," the letter reads. "If the current reported trend continues, we fear that there is definitely a possibility that our public water supply could be contaminated."

Although several wells in the area have "salted out" and tested with very high chloride lev-els, so far no mercury has been detected in any private wells — except the monitor well on the Osborn ranch — or in the city's water supply.



TAMMY MCKINLEY/ HOBBS NEWS-SUN An unknown gas escapes from a burning pit on the Clay Osborn's ranch Wednesday night. The source of the gas is unclear; however, Osborn keeps it burning to prevent a back-up and possible explosion on his property.

Osborn learned of the potential mercury contamination after a test performed by the E.O.T.T. Pipeline Company.

He added that if the company had not done the testing, he may never have known that mer-cury was present. He also added that he doesn't know exactly which company is responsible for the mercury.

Robert C. Lang, the environmental, health and saftey manager with Chaparral Energy, said the possibility of mercury contamination



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From the front

Contamination

from PAGE

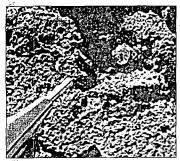
is news to him.

ry contamination on Osborn's property it may have found its way into the water.

Stephenson said he doesn't believe the city's water has been affected, but said it would be a good idea to test the city's water anyway to make sure.

"I don't think the people of Jal know if the water is contaminated," Stephenson said. So far, only private wells along the north edge of town have been contaminated with brine and chlorides. It's not clear if the contamination includes mercury or if it threatens the city's municipal supply.

On Monday, representatives from the state Environment Department visited the Osborn ranch to collect water samples. Lisa D. Brown, a water resource engineering specialist with the Environment Department,



TAMMY MCKINLEY/ HOBBS NEWS-SUN

Traces of mercury are found on the Jal ranch of Clay Osborn Monday. Osborn recently had his wells salinated and is testing for mercury in his water.

admits it didn't particularly want that area, and knew there was some pending litigation because of the contamination

A Carl

have found its way into the

"We've got to start eliminating all these sources and find out where it's coming from,"

While the possibility of mer-cury contamination is still somewhat speculative, the brine

After finding the wells con-taminated with chlorides and

brine. Oshorn shut off most of

his wells and allowed the stock

ponds on his ranch to dry up. In spots where the spills were

swaths of vegetation have sim-ply died, leaving only the open

sandy soil and a few salt-toler-ant weeds. The Osborns have

been hauling water from town

to use for drinking and cook

ing for more than a year.

entire

"We're getting

awful tired of h a u l i n g , " Osborn said.

The area in question, the

question, the South Langlie

Jal Unit, is cur-

rently owned by Chaparral Energy. That

company is not, however, the one responsible

for the contami-

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Osborn said.

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Thave yet to see anything regarding mercury contamination. That's a new one "he supplies. However, since observed sconcerns involve possion state in the observed sconcerns involve possion in the same sconcerns involve possion same sconcerns involve possion same sconcerns involve possion in the same sconcerns involve possion same sconcerns involve possion same sconcerns in the same sconcerns involve possion in the same sconcerns in the same sconcerens in the same sconcerns in the same sconcerns in the sa "The problem is widespread; you can pin blame on just about anybody in that part of mercury: found closely in about anybody in that part of Osborn's-land, they are also: the country be they in the oil concerned the material may business, the cattle business or any other business," Lang said. "Your soils are such that anything you spill on the ground will eventually more than likely wind up in the aquifer. There's no totally imperme-able barrier between the surface and the first aquifer."

Lang also points out that not all the wells in the area are contaminated, and that it would be premature to place all the responsibility on Chaparral until further tests have been done.

"I have no reason to doubt Mr. Osborn," Lang said. "It appears that he does have a water problem. But there are also ... wells from this same zone where the water is very good and not too far from him.

Although Chaparral is not the company that caused the con-tamination, it is the owner and must file an abatement plan. The company filed a stage-1 abatement with the OCD in August to start the process of deciding what cleanup procedures should be taken. This is the same plan the City of Jal wrote a letter in response to, and Osborn also finds the abatement plan inadequate.

"The context of the abate-ment plan is too general," Osborn wrote in his rebuttal to Chaparral's plan, "and incor rectly assumes that the ground water resources under-lying the Osborn property was that ... the initially of poor quality.

Lang, who authored Chaparral's plan, has pointed out that elevated levels of chlorides have been detected as far back as the early 1950s, long

before Bristol or Chaparral became involved. "They've been contaminated

Brown

Lisa

for quite some time," Lang said.

from the

Environment Department Drinking Water

Division out of Clovis gathers water from

For their part, the Osborns said they aren't after a big set-tlement; they simply want Chaparral to put their land back in order.

"What we're after is our land restored and our wa restored," Jeri Osborn said. water

The Osborns say they wanted to retire on the ranch. The area has particular sentimen-tal value for them since Jeri's great-grandmother hom steaded the property in 1908. home

Jeri Osborn said they continue to stick it out on their ranch because they hope eventually something will change.

We keep hoping somebody will help," she said. Osborn said over time his attempts to document the leaks and spills Bristol was

responsible for became some thing of a contest. "When they found out I was a cowboy with a camera, they tried to get out here to cover it up before I could get here, Osborn said.

Osborn's documentation efforts often paid off. In a letter from Olson to officials at Bristol about their environ-mental assessment of conditions on Osborn's ranch, Olson notes that OCD staff visited the ranch and found things

weren't quite the way Bristol said they were.

Re. 11 6

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"In addition, the OCD's inspection and Mr. Osborn's documents show that there are conditic several other BRC (Bristol Resources Corporation) spill sites upgradient of Mr. Osborn's wells that were not addressed in BRC's environmental assessments," the letter reads.

"It's just sickening sometimes, the amount of damage that's been done," Osborn said "You get mad is what you do."

By his own estimation Osborn has already spent tens of thou-



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Contamination threatens family's history on ranch

MARK R. FLETCHER IOBBS NEWS-SUN

For Jeri Osborn the condition of her ranch is especially difficult.

Osborn's great grandmother, Elydia C. Winters, homesteaded there around 1908, and the ranch has a long history in her family — several family mem-bers were born and died on the ranch. Now the Osborns fear it may have become so heavily contaminated they may have to abandon it.

"(They) all died right out there," Jeri Osborn says of the ranch she and her husband Clay now call home. "It means a lot to us."

Osborn said she grew up at the ranch. The original homestead is still standing, which had room after room added to it over the years. Its rough and rugged ancestry shows in the slanting, do-it-yourself-or-do-without style floor.

Outside an old windmill still stands, though the wooden water tub blew away in a recent windstorm. Jeri Osborn added that several of the original outbuildings shed and a barn also received some damage in the same storm, along with several cottonwood trees.

The trees were also victims of the rising salt levels in the water, with the storm delivering the coup-de-grace. Osborn said the house does

n't even have a foundation, but rests directly on the ground. She added they have thought are too high, and they fear it may fall apart in the process. Osborn said she has a lot of

memories of living out on the ranch, and recalls meeting Winters when she was nearing the end of her long life — she died in the 1960s at age 99.

Winters must have been tough as nails to survive in a desolate place long before comforts like electricity and good roads made their way to this dusty spot of the world.

Osborn said Winters' first husband, Jon Ball, died shortly after they arrived. Osborn wears the ring he gave her with the initials J.B. inscribed on it.

The Osborns began buying up the property from the other heirs; most of whom she says

keep up their fight to get their land and water cleaned up because they like the place, not only for its long family history - but because it's just a beau tiful spot.

Both Osborns speak lovingly of the wide open clear view they have in several directions and the star-bedecked night sky that arches over their ranch.

"We like it here, it's nice and quiet," Jeri Osborn said. She still hopes they can find

a way to get their property restored, but admits that she sometimes worries that it may not be possible.

"Yes. That thought is out there." she said of having to

back." Osborn said Osborn said she wants to

City of Jal

1

Telephone (505) 395-3340 Fax (505) 395-2243

523 Main PO Drawer 340 Jal, New Mexico 88252

October 9, 2001

New Mexico Energy, Minerals & Natural Resources Department Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505

Attention: William C. Olson, Hydrologist

Re: Stage 1 Abatement Plan Proposal for Chaparral Energy, Inc.

Dear Mr. Olson:

Chaparral Energy has submitted a Stage 1 Abatement Plan Proposal for the South Langlie Unit site located near Jal, New Mexico in portions of Sections 7, 8, 17 and 18 of Township 25 South, Range 37 East, NMPM, Lea County, NM. They do operate or have operated injection wells at this site.

We do agree that Chaparral needs to conduct a complete investigation to determine exactly what problems exist, report findings and take the necessary action to reverse existing problems. However, the City of Jal will not be responsible for any expenses incurred by Chaparral Energy, Inc.

We do not feel that the proposed abatement plan is extensive enough to correct existing damage and/or prevent future contamination. It is our belief that additional well testing should be done. The plan should include testing of area wells that may not have been yet labeled as contaminated. Plus, test wells should be drilled in an area that is not situated in a straight line, but in a staggered formation.

If the current reported trend continues, we fear that there is definitely a possibility that our public water supply could be contaminated.

Thank you for your assistance and consideration.

Sincerely,

Mary C. Claiborne

Mary C. Claiborne, Mayor



 701 Cedar Lake Blvd.
 ◆
 Oklahoma City, OK 73114-7806

 (405) 478-8770
 ◆
 Fax: (405) 478-1947

October 8, 2001

New Mexico Oil Conservation Division Attn: Bill Olson, Hydrologist 1220 South St. Francis Drive Santa Fe, NM 87505

Dear Mr. Olson:

Attached you will find a copy of the Notice of Publication sent to Chaparral Energy, Inc. from the Lovington Daily Leader, regarding the Stage 1 Abatement Plan for the South Langlie Jal Unit.

Should you require anything further, please contact the undersigned.

Sincerely,

Robert C. Lang IV, REM, CEA Environmental, Health & Safety Manager

Affidavit of Public Con

STATE OF NEW MEXICO

) ss.)

COUNTY OF LEA

John Graham being first duly sworn on oath deposes and says that he is Publisher 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.

That the notice which is hereto attached, entitled

Notice Of Publication

Runch xxxx where read
Enurity Xiew 360000, was published in a regular and
entire issue of THE LOVINGTON DAILY LEADER and
not in any supplement thereof, SNGEX & XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
BANKKXBAYXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
RONSOCH NEXA beginning with the issue of
September 25 xg 2001
and ending with the issue of
September 25 Kg 2001
And that the cost of publishing said notice is the
sum of \$
which sum has been (Paid) *Assesses) as Court Costs

9th Subscribed and sworn to before me this

хах 2001 October day of lh hNotary Public, Lea County, New Mexico

¥¥ 2002

.....

My Commission Expires June 22

LEGAL NOTICE 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 Division Regulations, the following Stage 1 Abatement Plan Proposal has been sub., Any, interested therson mitted to the Director of Samay obtain further inforthe Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, New Mexico 87505, Telephone Mexico 87.0007 (505) 476-3440 Chaparral Energy, Inc. Robert C. Lang, Environmental, Health & Safety Telephone (405), 478, Oil Conservation Division 8770, 701 Cedar Lake Hobbs District Office, Blvd. Oklahoma City, 1625 N. French Drive Oklahoma 73114:7806, Hobbs New Mexico Telephone (505) Safety Manager, has submitted a Stage Abatement Plan Proposal for the South Langlie Jal, a.m. Fand 4:00, / p.m., Unit Site, located near Jal, Monday, through Friday, New Mexico in portions of Prior to ruling on any, pro-Sections 7, 8, 17 and 18, posed Stage 1 Abatement of Township 25 South, Plan & Proposal, the Range 37 East NMPM, Director for the Oll Lea County New Mexico Conservation Division Chaparral Energy, Inc. Shall allow at least thirty operates oil-and gas pro- (30) days after the date of operates oil-and gas pro-operates oil-and gas pro-duction and injection wells publication of this motice at the site 'Chloride and' during which written com-total dissolved solids in ' ments may besubmitted excess of New Mexico Water Quality (Control Rubbished in the Lovington Commission standards Daily usader September have been observed in 225, 2001; ground water at the site The Stage 1, Abatement Plan Proposal presents the following subsurface the following subsurface nvestigation activities: determine site geology and hydrogeology; conduct a registered water well search within a 1 mile

radius of the site; install monitoring wells; collect

soil samples for field screening and/or laboratory analysis from each boring; collect ground water samples for aboratory analysis from each monitoring well; obtain depth to ground, water measurements and calculate the ground water gradient, and direction; survey fall, well locations by a professional land surveyor regis-tered in the State of New Mexico and prepare a report summarizing field activities and laboratory results mation ifrom the 'Oil Conservation Division and may submit written com-ments to the Director of the Oil Conservation Division at the vadress given above. The State Abatement Plan Proposal may be viewed at the above address or at the 88240 Telephone (505) 393-6161 between 8:00





(405) 478-8770

701 Cedar Lake Blvd.
 Oklahoma City, OK 73114-7806 Fax: (405) 478-1947

October 8, 2001

New Mexico Oil Conservation Division Attn: Bill Olson, Hydrologist 1220 South St. Francis Drive Santa Fe, NM 87505

Dear Mr. Olson:

Attached you will find a copy of the Notice of Publication sent to Chaparral Energy, Inc. from the Hobbs News-Sun and the Albuquergue Journal, regarding the required Stage 1 Notice of Publication. Notices were sent to all three newspapers but as of this writing no written response has been returned to us from the Lovington Daily Leader. The Lovington Daily Leader has been requested to send us an Affidavit of Publication. As soon as it arrives a copy will be forwarded to you.

Also attached are Affidavits of Mailing. The first one covers the names we were sent by the State of New Mexico. The second covers all owners of record within one mile of the South Langlie Jal Unit.

Should you require anything further, please contact the undersigned.

Sincerely,

Robert C. Lang IV, REM, CEA Environmental, Health & Safety Manager

AFFIDAVIT OF PUBLICATIO

State of New Mexico, County of Lea.

I, KATHI BEARDEN

Publisher

of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

1

weeks.

2001

2001

Beginning with the issue dated

of

September 22 2001

and ending with the issue dated

September 22

Publisher Sworn and subscribed to before

24th me this day of

September

Alonson

otary Public.

My Commission expires October 18, 2004 (Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

02105572000 02550273

ments may be submitted. #18442

Chaparral Energy, Inc. 701 Cedar Lake Blvd. OKLAHOMA CITY, OK 73114-7806

LEGAL NOTICE

September 22, 2001

NOTICE OF PUBLICATION

STATE OF NEW MEXICO

Notice is hereby given that pursuant to New Mexico Oil Conservation Division Regulations? the following: Stage 1 Abatement Plan Proposal has been submitted to the Direc-tor of the Oil Conservation Division 1220, St Francis Dr. Carter Division Proposal has been submitted to the Direc-tor of the Oil Conservation Division 1220, St Francis Dr.

Santa Fe, New Mexico 87505, Telephone (505) 476-3440; Chaparral Energy Inc., Robert C. Lang, Environmental,

Health & Safety Manager, Telephone (405) 478-8770, Health & Safety Manager, Telephone (405) 478-8770, 73114-7806, has submitted a Stage 1 Abatement Flan Proposal for the South Langlie Jal Unit site, located near Jal, New Mexico in portions of Sections 7, 8, 17, and 18 of Township 25 South Range 37 East, NMPM, Lea County, New Mexico Chaparral Energy! Inc. 101911 operates oil and gas production and injection wells at 2010

operates oil and gas production and injection wells at) // the site: Chloride and total dissolved solids in excession New Mexico Water Quality Control Commission of solids standards have been observed in ground water at the

site. The Stage 1 Abatement/Plan Proposal presents'

site. The Stage II Abatementical Hoposaplesents the following subsurface investigation activities if 1400 ft determine site geology and hydrology; conduct a fight fregistered well search within a 1 mile radius of the site install monitoring wells; collect soil samples for field screening and/or laboratory analysis from each boring a collect ground water samples for laboratory analysis 255

of from each monitoring well: obtain depth to ground water. 10 reach monitoring well cortain depth to ground wate 11 measurements and calculate the ground water gradient monand direction; survey all well locations by a professional renand surveyor registered in the State of New Mexico;

and propare a report summarizing field activities and 301 aboratory results and 301 activities and 301

Any interested person may obtain further information from

Any interested person may obtain further information from the Oil Conservation Division and may submit written.com-ments to the Director of the Oil Conservation Division at the address given above The Stage 1 Abatement Plan Proposal may be viewed at the above address of at the Oil Conservation Division Hobbs District Office, 1625 N-French Drive, Hobbs, New Mexico 88240. Telephone (505) 393-6161. between 8:00. atm; and 4:001 p.m.; Monday, through Friday. Prior to ruling on, any proposed Stages 1 Abatement Plan Proposal, the Director of the Oil Conser-vation Division shall allow at least thirty-(30) days after the

vation Division shall allow at least thirty (30) days after the date of publication of this notice during which written com-

ibs not

ENERGY, MINERALS AND NATURAL

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RECEIVED OCT - 12001

Advertising Receipt

Hobbs Daily News-Sun

201 N Thorp P O Box 850 Hobbs, NM 88241-0850 Phone: (505) 393-2123 Fax (505) 397-0610

Robert Lang Chapanal Energy, hc. 701 Cedar Lake Blvd. OKLAHOMA CITY, OK - 73114-7806

Cust#:	02105572-000
Ad#:	02550273
Phone:	(405)478-8770
Date:	09/21/01

Ad takersvieg

Salesperson:

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E OF PUBLICATION OF NEW MEXICO SY, MINERALS AND NATURAL					Total Due	65.68
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Notice is hereby given that pursuant to New Mexico Oil Conservation Division Regulations, the following Stage 1 Abatement Plan Proposal has been submitted to the Director of the Oil Conservation Division, 1220 St. Francis Dir., Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

Chiapanal Energy, hc., Robert C. Lang, Environmental, Heialth & Safety Manager, Telephone (405): 478-8770, 73114-7806, has submitted a Stage 1. Abatement Plan P roposal for the South Langlie Jal Unit site, located near Jal, New Mexico in portions of

STATE OF NEW MEXICO SS County of Bernalillo Bill Tafoya, being duly sworn, declares and says that he is Classified 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, Chapter 167, Session Laws of 1937, and that payment therefore has been made of assessed as court cost; that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for times, the first publication being on the C

PRICE

 \mathcal{I} , 2001, and the subsequent consecutive publications on

Sworn and subscribed to before me, a Notary Public, in

and for the County of Bernalillo and State of New Mexico

of 2001.

Statement to come at end of month.

ACCOUNT NUMBER

this

CLA-22-A (R-1/93)

OFFICIA Samanth NOTAR STATEPE Annission Expires: My Co MOI

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES CONSERVATION DIVISION Notice is hereby given that pursuant to New Mexico Oil conservation divi-

NOTICE OF PUBLICATION

sion Regulations, the following Stage 1 Abatement Plan Proposal has been submitted to the Director of the Oll conservation Olvision?1220 St. Fran-cis Dr., Santa Fe, New Mexico 87505 Telephone (505) 476-3440

Chaparral Energy, Inc., Robert C Lang, Environmental, Health & Safety, Manager, Telephone (405) 478-8770, 701 Cedar Lake Blvd. Oklahoma City, Oklahoma 73114-7806, has submitted a Stage 1 Abatement Plan Proposal for the 1 Abatement Plan Proposal for the South Langlie Jal Unit site, located near Jal; New Mexico In portions of Sections 7: 8: 17 and 18 of Town-ship 25 South Range 37. East NMPM East County New Mexico Chaparral Energy, Inc. operates of and gas production and injection in the section of the wells at the site. Chloride and total dissolved solids in excess of New Mexico Water Quality Control Com mission standards have been ob served in ground water at the site The Stage 1 Abatement Plan Pro-posal presents the following subsurface investigation activities: deter mine site geology and hydrogeolo gy; conduct a registered water well search within a 1, mile radius of the site; install monitoring wells; collect soil samples for field screening and/ or laboratory analysis, from each boring, collect ground water sam-ples for laboratory analysis from each monitoring well; obtain depth to ground water measurements and calculate the ground water gradient and direction survey all well loca tions by a professional land survey-or: registered in the State of New Mexico; and prepare a report sum marizing field activities and labora tory results.

Any interested person may obtain fur ther information from the Oil Conser vation Division and may submit writ-ten comments to the Director of the offic conservation. Division, at, the ad-dress given, above at he Stage 1 Abatement Plan. Proposal may be viewed at the above address or at the Oll Conservation Division Hobbs Dis-trict Office, 1625 N. French Drive. trict Office, 1625 N. French Drive, Hobbs, New Mexico: 88240. Teles, phone (505), 393-6161 (between 8:00 a.m. and 4:00 mm. Mondary Infough Friday. Prior to mm. Mondary Infough Priday. Prior to mm. Mondary Infough posal, the Director of the Oll Conser-vation Division shall allow at least thir ty (30) days after the date of publica-tion of this patter during which written tion of this notice during which written comments may be submitted Journal: September 24, 2001

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AFFIDAVIT OF MAILING

ROBERT C. LANG IV, being first duly sworn, upon oath states:

I am the Environmental, Health & Safety Manager for Chaparral Energy, Inc. whose address is 701 Cedar Lake Blvd., Oklahoma City, OK 73114-7806. On September 19, 2001 I caused to be mailed Notice of Chaparral Energy, Inc.'s application to the New Mexico Oil Conservation Division for Approval of the Stage 1 Abatement Plan Proposal for the South Langlie Jal Unit in Leas County, New Mexico.

The statements contained in this Affidavit are true and correct and any flse statement may subject the affiant to a charge of perjury.

FURTHER AFFIANT SAYETH NOT.

BCT

Subscribed and sworn to before me this	20	day of _	Septem ber	,
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Notary Public

My Commission Expires:

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Jal, NM 88252	P.O. Box 927	c/o Silvio Cervantes	Belly W. Cramer
	Jal, NM 88252	P.O. Box 344	Beatrice H Shiplet
	Jal, NM 88252	P.O. Box 698	Beatrice Carrasco & James Licon
	Pecos, TX 79772	P.O. Box 1897	Barney Hubbs
	Pecos, TX 79772	P.O. Box 1897	Barney Hart Hubbs
	Jal, NM 88252	P.O. Box 369	B. H. Chisolm
	Jal, NM 88252	P.O. Box 684	B. G. Snider
	Jal, NM 88252	P.O. Box 173	Audrey L Vasquez & Jack Harbison
	Jal, NM 88252	P.O. Box 772	Aubrey G. Watson
	Jal, NM 88252	Drawer B	Assembly of God Church
	Jal, NM 88252	P.O. Box 899	Arturo Lujan
	Jal, NM 88252	P.O. Box 945	Arturo C. & Sylvia Lopez
	Jal, NM 88252	P.O. Box 1113	Arron D. Dobbs
	Jat, NM 88252	P.O. Box 1267	Armstrong Family Trust
	Jal, NM 88252	P.O. Box 619	Armando Meza
	Hobbs, NM 88240	608 East Stanolind Rd.	Armando Cervantes
	Hobbs, NM 88240	1924 E Oak	Apostolic Assembly of the Faith in Christ Jesus, Inc.
	Hobbs, NM 88240	4027 Eunice Hwy	Apolinar Castillo
	Jal, NM 88252	P.O. Box 489	Antonio Holguin
	Jal, NM 88252	P.O. Box 718	Antonio H. Gonzales
	Jal, NM 88252	P.O. Box 853	Antonio Armendariz, Jr.
	Jal, NM 88252	P.O. Box 1146	Anita Yarborough
	Jal, NM 88252	P.O. Box 54	Angel Gonzalez
Austin, TX 78744	7101 Dixie Dr.	c/o Alicia Mack	Andres T. Orozco
	Odessa, TX 79764	7402 Diana	Andres M. Ortega, Jr.
	Jal, NM 88252	P.O. Box 155	Andres Juarez
Jal, NM 88252	P.O. Box 177	c/o Norman Pender	Anabell Holden
	Tampa, FL 33615	8308 Woodlake Place	
	Jal, NM 88252	P.O. Box 1145	American Legion Rex Baird Post # 38
	Jal, NM 88252	P.O. Box 1061	Alvaro Hernandez Jr.
	Jal, NM 88252	P.O. Box 1015	Alton W. Cox
	Jal, NM 88252	P.O. Box 962	Alonzo V. Briones
	Clovis, NM 88101	P.O. Box 1907	Allsup's #32
	Fort Worth, TX 76102	801 Cherry St.	Allied Chemical Corp. Meridian Oil Inc-Ad Valorem
	Hamilton, MT 59840	179 Ricketts Road	Allen J. Dutton
	Jal, NM 88252	P.O. Box 494	Alice P.Martinez
	Jal, NM 88252	P.O. Box 567	Alfred R. Posey
Jal, NM 88252	P.O. Box 696	c/o Daryl Reed	Adan Escareno
	Hobbs, NM 88240	1607 E Bond	Abraham R. Navarrette
	Jal, NM 88252	P.O. Box 904	A F & A M Lodge

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Mc Murray, PA 15317	Pmb 353 4017 Washington Rd	Communications Media Tax Serv%	Castle Tower Corp
	Jal, NM 88252	Drawer D	Carroll H. & Mabel P. Leavell
	Carlsbad NM 88220	1106 N. Country Club	Carolyn Taylor
	Valiant, OK 74764	P.O. Box 950	Carolyn Rooks
	Jal, NM 88252	P.O. Box 51	Carolina Cervantes
	Jal, NM 88252	P.O. Box 87	Carmen Pulido
	Jal, NM 88252	P.O. Box 628	Carlos Navarrette
	Jal, NM 88252	P.O. Box 50	Carlos C. Martinez
	Jal, NM 88252	P.O. Box 1003	Carldean Walls
	Jal, NM 88252	P.O. Box 774	Carl Caudle
Midland, TX 79703	3709 Cedar Springs	c/o J.D. Franklin	C.R. Franklin
Jal, NM 88252	P.O. Box 178	c/o Jal Public Library Fund	C.D. Woolworth Trust
	Jal, NM 88252	Star Route 1, Box 114	C.D. Smith
	Jal, NM 88252	P.O. Box 531	C. W. Rogers Jr. et al
Las Cruces, NM 88001	2080 Austin Drive	c/o Virginia Baeza Carillo	C. A. Reno
	Jal, NM 88252	P.O. Box 258	Burl A. Hiles
	Jal, NM 88252	P.O. Box 870	Buren L. Pittman
	Jal, NM 88252	P.O. Box 322	Brumley Elton Ray
	Jal, NM 88252	P.O. Drawer A	Brininstool LLC
	Lometa, TX 76853	P.O. Box 11	Bonner Ivey
	Jal, NM 88252	P.O. Box 956	Bobby W. Smith
	Jai, NM 88252	P.O. Box 757	Bobby G. Wells
	Jal, NM 88252	P.O. Box 515	Bobby G. Burkett
Jal, NM 88252	P.O. Box 365	c/o Chad A. Merchant	Blocker Family Trust
	Arlington, NM 76012	800 Del Mar Lane	Billy W. Mosley
	Jal, NM 88252	P.O. Box 533	Billy L. Bentle
	Jal, NM 88252	P.O. Box 421	Billy Kirby
Jal, NM 88252	P.O. Box 1103	c/o Donnie W. Green	Billy Hart Gubbs
	Jal, NM 88252	P.O. Box 1120	
	Jal, NM 88252	P.O. Box 412	
	Columbia, MO 65201	23 Broadway Village Dr., Apt. A	Billie B. Clarke
	Colorado Springs, CO 80904	1211 Whitehouse Dr.	Bill R. Garrett
	Jal, NM 88252	P.O. Box 1197	Bill H. Evans
	Carlsbad, NM 88220	1106 N Country Club	Bill G. Taylor
	Jal, NM 88252	P.O. Box 121	Bill Alaxendar
	Hobbs, NM 88240	7025 Eunice Hwy	Betty White, James & Benny Stephens
	Jal , NM 88252	P.O. Box 1147	Betty L. Holland
	Jal, NM 88252	P.O. Box 258	Bernard R. Volpe
	Jal, NM 88252	P.O. Box 444	Benjamin T. Fisher & Rueben Lujan
	Jal, NM 88252	P. O. Box 638	Ben H. Chance

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c/o Jal Public Library Fund Trust
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	Jal, NM 88252	P.O. Box 1248	Eddie L. Collins
	Jal, NM 88252	P.O. Box 208	Eddie & Linda Hill
	Stratford, OK 74872	P.O. Box 483	Earl R. Stanton
Jal, NM 88252	P.O. Box 794	c/o Humberto Rodriques	E. W. Rusche
	Jal, NM 88252	P.O. Box 1095	Dulces P. Lujan
	Jal, NM 88252	P.O. Box 800	Dulces N. Jarez
	Jal, NM 88252	P.O. Box 293	Duane F. Walden
	Midland, TX 79702	P.O. Box 10426	Doyle Hartman
	Jal, NM 88252	P.O. Box 992	Douglas W. Harrison
	Kermit, TX 79745	P.O. Box 1079	Dorothy J. Jackson
	Jal, NM 88252	P.O. Box 212	Doris L. & Allen D. Speed
	Oracle, AZ 85623	P.O. Box 1713	Donald Whitten, et. al.
	Broonville, IN 47601	1166 HWY 261	Donald Ray Huff
	Jal, NM 88252	P.O. Box 553	Donald R. Trice Trust
	Jal, NM 88252	P.O. Box 37	Donald R Welch
	Jal, NM 88252	P.O. Box 828	Donald H. Adams & Peggy J. Adams
	Jal, NM 88252	P.O. Box 387	Don W. Tibbets
	Jal, NM 88252	P.O. Box 758	Don W. Green
	Kermit, TX 79745	Star Route Box 173	Deward T. Taylor
Abilene, TX 79605	1351 Andy Lane #523	c/o Richard K. Townsen	Desdie Pauline Wilkerson
	Princeton, TX 75407	9081 County Road 865	Dennis Allen
	Jal, NM 88252	P.O. Box 210	Denise I. Arroya
	Carlsbad, NM 88220	2601 Radio Blvd	Della Taylor Laman
	Westby, MT 59275	P.O. Box 54	Delbert Melby
	Jal, NM 88252	P.O. Box 1021	Delard A. Miller
	Jal, NM 88252	P.O. Box 1018	De Wayne Chesser
	Jal, NM 88252	P.O. Box 603	David T. Artalejo
	Jal, NM 88252	P.O. BOX 70	David Suitor
	Austin, TX 78759	8105 Forest Mesa	David Michael Passarella
	Jal, NM 88252	P.O. Box 1114	David Maness
	Jal, NM 88252	P.O. Box 79	David L. Hammons
	Midland, TX 79706	10802 Est County Road 106	
	Jal, NM 88252	P.O. Box 603	David F. Artalejo, et al
	Jal, NM 88252	P.O. Box 382	
	Jal, NM 88252	Box 837	
	Odessa, TX 79761	P.O. Box 14075	David C. Baum & Vicki K. Gwynne
	Jal, NM 88252	P.O. Box 592	Daryl D. Snell
	Jal, NM 88252	P.O. Box 749	Darrold E. Stephenson
	Jdi, 1111 00202		

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	1al NM 88252		Erank D. Cana Truct
	Jal. NM 88252		Frank B. Frame
	Jal, NM 88252	P.O. Box 254	Franciso Javier Garcia
	Jal, NM 88252		Francisco S. Muniz
	Jal, NM 88252	P.O. Box 565	Francisco Ramos
	Jal, NM 88252	P.O. Box 210	Francisco Arroyo
	Jal, NM 88252	P.O. Box 458	Fonzy Abeyta
	Jal, NM 88252	Drawer BB	Floyd's Pumping & Roustabout Service
	Jal, NM 88252	P.O. Box BB	Floyd's Property
	Jal, NM 88252	P.O. Drawer BB	Floyd Mathis
	Jal, NM 88252	P.O. Box 1075	Floyd Lee
	Jal, NM 88252	P.O. Box 146	Floyd C. Pilcher
	Arlington, NM 76012	800 Del Mar Lane	Floyd A. Mosley
	Jal, NM 88252	Drawer B B	Floyd Mathis
	Jal, NM 88252	P.O. Box 358	First Baptist Church
	Jal, NM 88252	Drawer 11	Fifth St. Baptist Church
	Jal, NM 88252	P.O. Box 77	Fernando Navarrette & Javier Garcia
	Jal, NM 88252	P.O. Box 729	Felix Hernandez
	Carlsbad, NM 88220	2530 W TEXAS	Felipe Juarez Jr.
	Ft. Stockton, TX 79735	107 S Greasewood St.	Faye M. Bryant (Brininstool)
	Hobbs, NM 88241	P.O. Box 1347	Faustino O. Ramirez
Ft. Worth, TX 76107	3631 Crestline Rd.	c/o Leta K. Slack	F. M. Slack
Millington, TN 38053	4721 Janie Ave.	c/o Judy Jinkins Neal	F. J. Jinkins
	Jal, NM 88252	P.O. Box 257	Eva Aguirre
	Jal, NM 88252	P.O. Box 609	Eutimio Ramirez
	Evansville, IN 47715	8100 Spry Road	Eugenia Lopp
	Jal, NM 88252	P.O. Box 862	Eugene Immel
	Jal, NM 88252	P.O. Box 74	Erma Granada Meza
	Jal, NM 88252	P.O. Box 602	Erma Avis Brewer Et al
	Jal, NM 88252	P.O. Box 314	Emma Navarrette
	Jal, NM 88252	P.O. Box 684	Elsie F. Snider
	Jal, NM 88252	P.O. Box 446	Eloise L. Dobbs
	Jal, NM 88252	P.O. Box 642	Eliazor Ibarra
	Monument, NM 88265	P.O. Box 25	Elia Mendoza
	Houston, TX 77252	P.O. Box 2511	El Paso Natural Gas Co. Ad Valorem Tax Dept.
	Monahans, TX 79756	905 S. James	Edwin Lee Cogburn
	Downey, CA 90241	P.O. Box 272	Edwin E. Eberhard
	Jal, NM 88252	P.O. Box 19	Eduardo Navarrete
	Carlsbad, NM 88221	P.O. Box 5072	Edna Mason

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		T.C. BOX 535	
	Jal, NM 88252	P.O. Box 836	Guadalupe Ramos
	Jal, NM 88252	P.O. Box 700	Guadalupe Fuentes
Irving, TX 75015	P.O. Box 152206	c/o Property Tax Dept.	GTE Southwest Inc.
	Ruidoso, NM 88345	901 Mechem Drive	Gregory Lloyd Gray
	Jal, NM 88252	P.O. Box 578	Gregory H. Fulfer
	Jal, NM 88252	P.O. Box 882	Gregorio Herrera
	Jal, NM 88252	P.O. Box 863	Gregg H Fulfer, et al
	Eunice NM 88231	P.O. Box 1480	Gold Star Service Co, Inc.
	Jal, NM 88252	P.O. Box 759	Gloria M. Nunez
	Jal, NM 88252	P.O. Box 700	Gilberto N. and Eulojia Comunez
	Jal, NM 88252	P.O. Box 893	Gertrude Faber
	Jal, NM 88252	P.O. Box 20	Geraldine Williams
	Jal, NM 88252	P.O. Box 1285	Geraldine Osborn & Clay Osborn
	Jal, NM 88252	P.O. Box 512	Gerald W. Knight
	Jal, NM 88252	P.O. Box 328	George W. Washburn
	Jal, NM 88252	P.O. Box 197	George G. Swain
	Jal, NM 88252	P.O. Box 138	George G. Segovia; Sr.
	Roswell, NM 88201	410 E. Country	George E. Ridlon
	Jal, NM 88252	P.O. Box 227	Geneva & Juan Jose Florez
	Hobbs, NM 88240	2020 Vega Court	Genee H. Schubet
	Jal, NM 88252	P.O. Box 1267	Gene Armstrong
	Jal, NM 88252	Box 363	Genaro Valles, Jr.
	Jal, NM 88252	P.O. Box 1201	Genaro S. Valles, Jr.
	Jal, NM 88252	P.O. Box 315	Gary W. Tipton, Jr.
	Jal, NM 88252	P.O. Drawer C	Gary Neill Blocker Trust
	Jal, NM 88252	P.O. Box 803	Gary M. Orr
	New Caney, TX 77357	#9 Vine Street	Gary L. Payne
	Jal, NM 88252	P.O. Box 576	Gale D. Morris
	Jal, NM 88252	P.O. Box 426	G. W. Ramsey & Charlene Hobbs
	Lovington, NM 88260	P.O. Box 1205	G. R. Hale
	Jal, NM 88252	P.O. Box 519	G. L. Hobbs
	Jal, NM 88252	Drawer	G L Oil & Drilling Co.
	Jal, NM 88252	P.O. Box 578	Fulfer Electric
Jal, NM 88252	Box 140	c/o Cindy Gray	Freddie Watson Dunlap
	Jal, NM 88252	P.O. Box 754	Freddie Joe Ragain
	Jal, NM 88252	P.O. Box 874	Freddie J. Watson
	Blossom, TX 75416	RR #1 Box 141	
	Midland, TX 79711	P.O. Box 60024	Frank L. Higgins
	Jal, NM 88252	P.O. Box 1133	Frank Klimek

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	Jal, NM 88252	Drawer T	J. T. Crawford Trust et al
	Anderson, MO 64831	P.O. Drawer T	J. T. Crawford
	Jal, NM 88252	P.O. Box 880	J. Cozette Mitchell
	Jal, NM 88252	P.O. Box 514	J. C. Bean
	Jal, NM 88252	ST Rt 1, Box 96	J. B. & Hazel Green
	West Sedonia, AZ 86340	P.O. Box 3896	Iva Lee Calley Riggs
	Odessa, TX 79761	1221 Hancock	Israel U. Rairez
	Jal, NM 88252	P.O. Box 248	Ismael O. Ramirez
	Jal, NM 88252	P.O. Box 268	Ismael M. Lujan
	Jal, NM 88252	P.O. Box 628	Isidro Navarette
	Jal, NM 88252	P.O. Box 363	Isabel Valles
	Jal, NM 88252	St Rt 1, Box 114	Irene Wilson Smith
Jal, NM 88252	P.O. Box 578	c/o Gregg Fulfer	Irene McGarvey
	Carlsbad, NM 88220	1427 Crabb	Irby Abernathy
	Lovington, NM 88260	310 N. Love	IOOF Lodge # 44
	Cincinnati, OH 45242	4501 Erskine Dr., Suite 50	IMC Mortgage Company
	Jal, NM 88252	P.O. Box 1088	Ida E. Fry, et. al.
	Jal, NM 88252	P.O. Box 794	Humberto Rodriguez
	Jal, NM 88252	P.O. Box 411	Humberto R. Muzquiz
	Jal, NM 88252	P.O. Box 780	Humberto Juarez
	Jal, NM 88252	Box 1981	Hugh Hardaway
Jal, NM 88252	P.O. Box 433	c/o Melzora Huddleston	Hugh C. Albertson
	Jal, NM 88252	P.O. Box 794	Huberto Rodriguez
	Jal, NM 88252	P.O. Box 1165	Hortencia Tavarez & Juan Luis Ramirez
Garland, TX 75042	1605 Melrose Circle	c/o Betty Owens Dolph	Horace B. Owens Heirs
	Jal, NM 88252	P.O. Box 29	Homero Valeriano
	Jal, NM 88252	P.O. Box 729	Hernandez, Felix
	Balmorhea, TX 79718	P.O. Box 14	Hernaldo Beltran
	Lovington, NM 88260	P.O. Drawer 413	Herbert B. Young
	Andrews, TX 79714	1201 NW 15th	Henry Pearson Norton II
	Tyler, TX 75701	1120 Wilma	Henry H. Harrison, Jr. & Ronald M. Harrison
	Jal, NM 88252	P.O. Box 863	Henry H. Fulfer
	Belen, NM 87002	512 N 4th St	Helen Jo Washburn
	Jal, NM 88252	P.O. Box 41	Harvey Tavarez
	Jal, NM 88252	P.O. Box 475	
	Royse City, TX 75189	803 Peterson St.	Harold Norman & Connie Mathis Bouton, Jr.
	Jal, NM 88252	P.O. Box 957	Harold L. Higgins
	Jal, NM 88252	P.O. Box 1016	Harold G. Holmans
	Abilene, TX 79601	Drawer B	Hardin-Simmons University Hardin-Simmons Station
	Jal, NM 88252	P.O. Box 850	Gumercindo Ortega
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	Oklahoma City OK 73109	1026 SW/ 58th	
	Jal. NM 88252		Jesse F O'Rear
Jal, NM 88252	P.O. Box 876	Jesse D. Grice c/o Ocie W. Grice	Jesse D. Grice
	Perryton, TX 79070	P.O. Box 821	Jerry T. Nave & Suzanne Bryan
	Jal, NM 88252	Drawer RR	Jerry R. Galle
	Jal, NM 88252	P.O. Box 148	Jerry L. McNeese
	Jal, NM 88252	HCR 68 Box 188	Jerold W., Rebecca Joan & Daniel J. Doom
	Ponca City, OK 74601	308 N. Pine Street	Jerelean McKenney
	Jal, NM 88252	P.O. Box 153	Jerald W. Jones
	Jal, NM 88252	P.O. Box 41	Javier Tavarez
	Jal, NM 88252	Box 1132	Javier G. Rodriguez
Jal, NM 88252	P.O. Box 41	c/o Carloto Tavarez	Jauan Carlos Tavarez
	Jal, NM 88252	P.O. Box	James S. McHahan
	Jal, NM 88252	P.O. Box 234	James Richard Snider
	Jal, NM 88252	P.O. Box 1005	ת
	Jal, NM 88252	P.O. Box 715	James R. Gilliam
	Jal, NM 88252	P.O. Box 215	
	Alvin, TX 77511	404 Debbie Lane	James Lee Townsend & Dama Morris
	Jal, NM 88252	P.O. Box 143	James L. Tucker
	Orla, TX 79770	P.O. Box 38	James L. Calaway
	Jal, NM 88252	P.O. Box 39	James I. and Tammy L. Pirtle
	Jal, NM 88252	P.O. Box 598	James H. Locklar
	Jal, NM 88252	P.O. Box 554	James H. Kennedy
	Jal, NM 88252	P.O. Box 936	James, Gary Bock
Bloomfield, NM 87413	P.O. Box 222	c/o David Ellis	James E. Berni
	Jal, NM 88252	P.O. Box 910	James D. Minnick
	Jal, NM 88252	P.O. Box 691	James Burress
	Hobbs, NM 88241	P.O. Box 1379	James Alvin Davis
	Albuquerque, NM 87122	8204 Indigo Court Ne	James Allen & Lucille Bryant
	Jal, NM 88252	P.O. Box 970	Jal Welding & Machine Works, Inc
	Jal, NM 88252	P.O. Box 1386	Jal Public Schools
	Jal, NM 88252	P.O. Box 178	Jal Public Library Trust
	Jal, NM 88252	P.O. Box Drawer Z	Jal Hospital District
	Kermit, TX 79745	P.O. Box 1079	Jal Fishing Tools
	Jal, NM 88252	P.O. Box 1283	Jal Country Club
	Jal, NM 88252	P.O. Box 78	Jaime R. Lujan & Aracely L. Lujan
	Jal, NM 88252	Drawer A A	
	Jal, NM 88252		Jacqueline Marie Thames et al
	Jal, NM 88252	P.O. Box 1045	Jack D. Hedgpeth
	Jal, NM 88252	P.O. Box 662	J. Yvonne Brown & Bonita L. Kidd

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Spring, TX 77386	1al NM 88252	D O Boy 616	loso M Lopoz Cr
Spring, TX 77386	1021, ININ 00202		
Spring, TX 77386	ININ NINA DODED	P O Boy 68	Jose Lonez. Jr.
Spring, TX 77386	Jal, NM 88252	109 Panther	Joni S. Alexander
	406 Spring Pines	c/o Meurig M. Jones, Trustee	Jones Family Trust
	Jal, NM 88252	P.O. Box 875	Johnny W. Chapman
	Jal, NM 88252	P.O. Box 1103	Johnny Mack Owen
	Jal, NM 88252	P.O. Box 953	Johnny Lee Warren
	Hobbs, NM 88240	P.O. Box 2446	Johnco Equipment Company Inc
	Jal, NM 88252	P.O. Box 969	John W. Youngblood
El Paso, TX 79904	3231 Zion Lane	c/o John L. Collins	John W. Collins
	Goldsmith, TX 79741	P.O. Box 54	John Tawney
	Jal, NM 88252	P.O. Box 308	John T. Storm
	Jal, NM 88252	P.O. Box 735	John Savoie
	Jal, NM 88252	P.O. Box 251	John R. Ledingham
	Hobbs, NM 88240	619 West Cochiti	John R. Hurta & Norma Engman
	Jal, NM 88252	P.O. Box 643	John N. Moody
	El Paso, TX 79924	5008 Dearborne	John Mark Lee & Dixie L. Lee
Jal, NM 88252	P.O. Box 459	Lazy Acres TR CRT #1 DBA	John D. Allen
	Jal, NM 88252	P.O. Box 695	John Cantu
232	San Antonio, TX 78232	13730 Norland	John C. Sparling
Jal, NM 88252	P.O. Box 908	c/o Roland Donnell Castleberry	John C. Merryman Trust
	Jal, NM 88252	P.O. Box 135	John B. Shreffler
	Jal, NM 88252	P.O. Box 205	John A. Savoie
	Jal, NM 88252	P.O. Box 645	Joe Tuten
	Jal, NM 88252	P.O. Box 502	Joe M. Navarro
	Kermit, TX 79745	P.O. Box 1221	Joe C. Chance
	Jal, NM 88252	P.O. Box 109	Joe Abeyta
	Jal, NM 88252	P.O. Box 38	Joaquin H. Baeza
	Jal, NM 88252	P.O. Box 77	Joandra Navarette
	Jal, NM 88252	P.O. Box 776	Jimmy Walter Hill
	Jal, NM 88252	P.O. Box 808	Jimmy Samaniego, Jr.
	Hobbs, NM 88240	1002 Jicarilla	Jimmy R. Hill
	Jal, NM 88252	Drawer DD	Jimmy Lewallen
	Jal, NM 88252	Star Route	Jimmy Joe Doom
	Kermit, TX 79745	919 East Winkler	Jimmy Hill
	Jal, NM 88252		Jimmy Heath
	Jal, NM 88252	P.O. Box 888	Jimmie D. Terrell
	Jal, NM 88252	P.O. Box 14	Jim White
	Jal, NM 88252	P.O. Box 30	Guzman
	Jal, NM 88252	P.O. Box 562	Jesus G. Contreras & Dora O Gutierrez

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	Kermit, TX 79745	525 S. Avenue "C"	Leslie Wayne Bond
	Jal, NM 88252	P.O. Box 25	Leroy W. Ragain
	Mason, TX 76856	P.O. Box 1547	Lera Jo Kingston
	Parker, CO 80138	20829 E Parliament Ct	Lena Marchiondo
	Jal, NM 88252	P.O. Drawer D	Leavell Insurance & Real Estate
	Jal, NM 88252	P.O. Box 573	Leatha Z. Guilliams
	Fort Worth, TX 76111	3000 E Belknap, Ste. 400	Lea Partners Kirkwood & Darby
	Jal, NM 88252	P.O. Box 401	Lawrence D. Hardin
	Jal, NM 88252	P.O. Box 137	Lavodis A. May
	Jal, NM 88252	HCR 1 Box 81	Larry Wayne Hill
	Jal, NM 88252	P.O. Box 1055	Larry Steve Bowen
	Jal, NM 88252	P.O. Box 79	Larry Hammons
	Jal, NM 88252	P.O. Box 247	Lanina H. Shiplet et al
	Midland, TX	P.O. Box 2730	Lanexco, Inc
	Jal, NM 88252	P.O. Box 1272	La Vodis A. May
	Jal, NM 88252	P.O. Box 563	
	Jal, NM 88252	P.O. Box 1124	L. C. Myers & Delma L. Bostic
	Fort Worth, TX 76111	300 E. Belknap, Suite 400	Kirkwood & Darby
	Midland, TX 79702	P.O. Box 10190	Key Energy Services- Permian
	Jal, NM 88252	P.O. Box 164	Keith Alan Walter
	Jal, NM 88252	P.O. Box 1227	Kathrynne A. Whitworth
	Jal, NM 88252	P.O. Box 7	Julian V. Rodriguez
Jal, NM 88252	P.O. Box 352	c/o Michael S. Locklar	Judy Maxine Bailey
	Jal, NM 88252	P.O. Box 961	Juanita Newberry
	Jal, NM 88252	P.O. Box 815	Juan Soto
	Jal, NM 88252	P.O. Box 314	Juan R. Tarin & Arnoldo A. Tarin
Jal, NM 88252	P.O. Box 268	c/o Ismail M. Lujan	Juan M. Lujan
	Las Cruces, NM 88004	P.O. Box 16091	Juan J. Villegas
	Jal, NM 88252	P.O. Box 582	Juan Irigoyen
	Jal, NM 88252	P.O. Box 130	Juan Gaytan
	Jal, NM 88252	Drawer 490	Joyce Jean Kimble
	Nogal, NM 88341	HC 67 Box 120	Joyce Carol Mosley
	Clyde, TX 79510	P.O. Box 152	Joy W. Brown
	Jal, NM 88252	P.O. Box 1014	Joseph Lowell McManes
	Jal, NM 88252	P.O. Box 867	Jose Valeriano
	Jal, NM 88252	P.O. Box 396	Jose Ruiz, Sr.
	Jal, NM 88252	P.O. Box 663	Jose Ramirez
	Jal, NM 88252	P.O. Box 262	Jose R. Hernandez
	Jal, NM 88252	P.O. Box 669	Jose Ortalejo
	Precidio, TX 79845	P.O. Box 284	Jose Navarrette

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Labels2

South Langlie Jal Unit Labels

	Jai, 19191 00232	F.O. BUX 273	Merced Judiez
			Melvin G. Harper
	Germantown TN 38138	P O Box 38446	McCord Enternrises
	Jal, NM 88252	P.O. BOX 216	Mc Mahan, J S
	Brownwood, TX 88252	HC 30, Box 25	Mavitt Lea Goedeke
	Jal, NM 88252	P.O. Box 225	Maryetta L. Harvey et al
Hobbs, NM 88240	DRAWER 0	Ronald C. Willard DBA	Mary Joleen Annette Pomar
	Jal, NM 88252	P.O. Box 867	Mary F. Valeriano
	Jal, NM 88252	P.O. Box 356	Mary C. Elkins
	Jal, NM 88252	P.O. Box 1302	Mary Ann Moore
	Jal, NM 88252	P.O. Box 233	Martin Porras & Celia Porras
	Jal, NM 88252	P.O. Box 89	Mario Camunez
	Jal, NM 88252	P.O. Box 562	Marcos R. Gallegos
	Eunice, NM 88231	P.O. Box 1406	Marcos Alonso De La Cruz
	Jal, NM 88252	P.O. Box 1406	Marcos Alonso
	Jal, NM 88252	P.O. Box 299	Marciano Morales
	Jal, NM 88252	P.O. Box E E	Marc Farris
	Carlsbad, NM 88220	406 S. Mesquite	Manuel Herrera, Jr.
	Jal, NM 88252	P.O. Box 806	Manuel H. Baeza
	Jal, NM 88252	P.O. Box 268	Manuel B. Lujan
	Midland, TX 79702	P.O. Box 2818	Manix Energy, LLC
Jal, NM 88252	P.O. Box 657	c/o Fernando Camunez	Lydia Soto Nieto
	Jal, NM 88252	P.O. Box 968	Luis Zavala
	Jal, NM 88252	P.O. Box 94	Luis Madrid
	Jal, NM 88252	P.O. Box 687	Luis D. & Teresa H. Herrera
	Jal, NM 88252	P.O. Box 97	Lucille Webb & Maridean Stautcenberger
	Jal, NM 88252	P.O. Box 849	Lowell C. Lewis
	Jal, NM 88252	P.O. Box 475	
	Jal, NM 88252	P.O. Box 415	
	Jal, NM 88252	P.O. Box 139	Lorenza O. Salinas & Robert O. Salinas
	Anderson, MO 64831	RR 3, Box 3592	Loree Crawford
	Clovis, NM 88101	P.O. Box 1907	Lonnie D. Allsup
Carlsbad, NM 88220	1703 Johnson St.	DBA Tradewind Electronics	Lois Miller
	Jal, NM 88252	P.O. Box 826	Lloyd D. Pruett
	Jal, NM 88252	P.O. Box 647	Lloyd A. Moore
	Jal, NM 88252	P.O. Box 879	Linden R. Immel
	Jal, NM 88252	P.O. Box 746	Linda L. Conway
	Jal, NM 88252	P.O. Box 513	Lillie P. Burress
Atlanta GA 30327	3594 Hadden Hall Road	c/o Bruce Lanehart	Lillian Irene Lanehart et al
	Midland, TX 79702	P.O. Box 2479	Lewis B. & Steven L. Burleson

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	Jal, NM 88252	P.O. Box 245	Patricia N. Sinclair
Jal, NM 88252	P.O. Box 734	c/o Devra L. Post	Patricia F. Hewett Huntington
	Jal, NM 88252	P.O. Box 514	Parnell Bean
	Jal, NM 88252	P.O. Box 915	Pablo Navarrete
Jal, NM 88252	P.O. Box 578	c/o Gregg Fulfer	P. H. Neville
	Jal, NM 88252	P.O. Box 34	Otho Gilder Clary, et al
	Hobbs, NM 88241	P.O. Box 1884	Otho G. Clary, Jr.
	Jal, NM 88252	P.O. Box 792	Oscar Rodriguez
	Carlsbad, NM 88220	5401 Abitia	Oscar Gonzales
Jal, NM 88252	P.O. Box 578	c/o Gregg Fulfer	Oran O. Whitten
	Jal, NM 88252	P.O. Box 1167	Opal Armstrong
	Jal, NM 88252	P.O. Box 134	Ollie Mae Jayroe
	Jal, NM 88252	P.O. Box 136	Olga Sauceda
	Jal, NM 88252	P.O. Box 88	Olen C. O'Neil
	Jal, NM 88252	% Bobby G. Norwood	Norwood Family Trust
	Jal, NM 88252	803 Hillcrest	Norman Robert Cline
	Jal, NM 88252	P.O. Box 1247	Norma Miller
	Jal, NM 88252	P.O. Box 484	Norma Fae Moore
Jal, NM 88252	P.O. Box 130	c/o Christine E. Liges	Nora Mary Martinez Rivera
Hobbs, NM 88240	2305 West Lakeview Drive	c/o Rufus Wilks	Nona Joyce Mauldin, et. al.
	Jal, NM 88252	P.O. Box 1095	Noemi Lujan
	Jal, NM 88252	P.O. Box 681	Nettie Fay Williams et al
	Jal, NM 88252	P.O. Box 1321	Nellie Jean Winkley & Roy Winkley
	Jal, NM 88252	P.O. Box 1282	Nell R. Addison et al
Hobbs, NM 88240	2000 N Fowler	c/o Delrose Scott et al	Nadine Owen
	Jal, NM 88252	P.O. Box 184	Myrtis I. Heaton
	Jal, NM 88252	P.O. Box 63	Murray Ward Ballard
Houston, TX 77038	2515 Lemonwood Lane	c/o D. M. Beene	Mrs. H. R. Womack
	Jal, NM 88252	P.O. Box 269	Monico J. Maes
	Jal, NM 88252	P.O. Box 391	Millard Armstrong
	Jal, NM 88252	P.O. Box 280	Mike T. Ramos
	Jal, NM 88252		Mike Emerson
	Jal, NM 88252	P.O. Box 658	Michael W. Chance
	Jal, NM 88252	P.O. Box 1272	Michael N. May
	Jal, NM 88252	P.O. Box 486	Michael D. Hughes
	Jal, NM 88252	P.O. Box 1051	Michael A. Huntington
	Jal, NM 88252	P.O. Drawer U	Merryman Construction Company
	Jal, NM 88252	Drawer D	Merryman Construction
	Jal, NM 88252	P.O. Box 661	Merle M. Shaffer
	Jal, NM 88252	P.O. Box 655	Merced Sanchez

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	Jai, NM 88252	P.U. Box 1194	Reecie M. Cole
	Jal, NM 88252	HCR 68 BOX 188	Rebecca Joan, Jerold and Daniel Doom
	Jal, NM 88252	Star Rt.	Rebecca J. Doom
	Jal, NM 88252	P.O. Box 64	Raymundo Fabela
	Jal, NM 88252	P.O. Box 648	Raymond Jones et al
	Jal, NM 88252	P.O. Box 555	Raymond Cantu, Jr.
	Ruidoso, NM 88345	P.O. Box 671	Raymon E. Harlas
	Jal, NM 88252	Drawer YY	Ray Dorsey
	Jal, NM 88252	P.O. Box 664	Raul Rojas
	Hemet, CA 92343	2770 Marilee Ct.	Raul L. Mendoza
	Jal, NM 88252	HCR 68 Box 95	Raul Jessie O. Ramirez
	Jal, NM 88252	P.O. Box 571	Raul C. Trevino
	Kermit, TX 79745	P.O. Box 1221	Rapid Transport, Inc.
	Jal, NM 88252	P.O. Box 995	Randy Ward
	Jal, NM 88252	P.O. Box 608	Randy W. Ward
	Jal, NM 88252	P.O. Box 727	Randall Healy
	Jal, NM 88252	P.O. Box 858	Ramon Prieto
	Jal, NM 88252	P.O. Box 503	Ramon D. Marquez
	Jal, NM 88252	P.O. Box 1196	Ramon C. Lopez & Yolanda F. Lopez
	Jal, NM 88252	P.O. Box 40	Ramiro Gonzalez
	Fairland, OK 74343	62751 S 630 Rd	Ralph A. Koenig
	Jal, NM 88252	P.O. Box 1105	Rafael Marquez
	Jal, NM 88252	P.O. Box 27	R. L. Shipman
	Jal, NM 88252	P.O. Box 963	R. C. Kiker
	Artesia, NM 88210	36 Howard Drive	R. A. Walls
	Jal, NM 88252	P.O. Drawer J	Q L Oil & Drilling Co
	Houstan, TX 77073	211 Highland Cross Suite 227	Primal Energy Corp.
	Jal, NM 88252	P.O. Box 1344	Pradipkumar Bhakta
	Jal, NM 88252	P.O. Box 1352	Porter E. Powell
Jal, NM 88252	P.O. Box 400	c/o Gilberto Ortega	Poli Acostal
	Jal, NM 88252	P.O. Box 323	Pilar Ramirez
	Jal, NM 88252	P.O. Box 294	Phyllis White
	Jal, NM 88252	P.O. Box 1083	
	Carlsbad, NM 88220	1805 Sandy Lane	\sim
Jal, NM 88252	P.O. Box 381	c/o Ethel Taylor	Peggy Joan Davis, et al
	Jai, NM 88252	P.O. Box 869	Pedro N. Ruiz
	Jal, NM 88252	P.O. Box J J	Pedro Martinez
	Hobbs, NM 88240	717 W Sanger	Pearson Oil Company, Inc
	San Angelo, TX 76901	P.O. Box 3633	Pauline Duckworth
	Jal, NM 88252	P.O. Box 1084	Paul E. Diffee

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Revminndo Favela	P.O. Box 64	Jal. NM 88252	
Richard F. Smith	P.O. Box 701	Jal, NM 88252	
Richard Hill	P.O. Box 572	Jal, NM 88252	
Richard K. Townsend	Star Rte Box 83	Glen Rose, TX 76043	
Richard L. Kerby	P.O. Box	Jal, NM 88252	
Richard McClain		Jal, NM 88252	
Richard S. Pittam		Jal, NM 88252	
Richard W. Posey	P.O. Box 796	Jal, NM 88252	
Richie D. Cooper	P.O. Box 884	Jal, NM 88252	
Rick C. Valles	P.O. Box 1201	Jal, NM 88252	
Ricky A Smith et al	P.O. Box 174	Jal, NM 88252	
Rita S. Watson	P.O. Box 805	Jal, NM 88252	
Robert A. Wilson	2100 Market St.,	Midland, TX 79703	
Robert D. Carr	c/o Doris L. Speed	P.O. Box 212	Jal, NM 88252
Robert E. Baty, Trust	P.O. Box 272	Jal, NM 88252	
Robert E. Campbell	614 South 6TH	Carlsbad, NM 88220	
Robert E. Chance	c/o Michael W. Chance	P.O. Box 658	Jal, NM 88252
		Harich Cucamoliga, CA 91701	
Robert M. Sappington	P.O. Box 1109	Jal. NM 88252	
Robert O. Dimmick	609 Bulette Dr.	Carson City, NV 89703	
Robert T. Ayres, Jr.	1366 Allenford Avenue	Los Angeles, CA 90049	
Roberta L. Barnes	P.O. Box 535	Jal, NM 88252	
Roberto O. & Lorenza O. Salinas	P.O. Bos 139	Jal, NM 88252	
Robin Tracy Antley	P.O. Box 394	Jal, NM 88252	
Rodrigo Navarrete	P.O. Box 12	Jal, NM 88252	
Rodrigo Navarrette, Jr.	P.O. Box 79	Jal, NM 88252	
Roger C. Huff	1144 Hwy 261	Boonville, IN 47601	
Roger Lower	c/o West Texas Appraisal Associates	P.O. Box 7275	Abilene, TX 79608
Ronald C. Willard	P.O. Drawer O	Jal, NM 88252	
Ronald E. Brittain	P.O. Box 827	Jal, NM 88252	
Ronald E. Haynes	P.O. Box 417	Jal, NM 88252	
Ronald M. Harrison	1120 WILMA	Tyler, TX 757010	
Ronald Snow	P.O. Box 285	Jal, NM 88252	
Ronnie C. Walls	P.O. Box 1032	Jal, NM 88252	
Ronnie G. Killgore	42 Comanche Road	Carlsbad, NM 88220	
Rosemary Davis	P.O. Box 197	Jal, NM 88252	
Roy S. Peugh Jr	P.O. Box 1264	Jal, NM 88252	
 Roy S. Peugh, Jr. 	c/o Roy S. Peugh, III	P.O. Box 784	Jal, NM 88252

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NM Labels2

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South Langlie Jal Unit Labels

	.1al NM 88252	Drawer V	Theo Essman
	Jal, NM 88252	P.O. Box 72	
	Austin, TX 78701	400 W. 15th Street #1700	Texas New Mexico Railroad, Deloitte & Touceh. LLP
	Albuquerque, NM 87111	3409 NE Chelwood Park Blvd	Terry Gayle Terrell et al
	Jal, NM 88252	P.O. Box 91	Tany Cordes & Carolyn J. Hamilton
	Jal, NM 88252	P.O. Box 158	Susie M. Tankersley
	Lubbock, TX 79423	3701 108th Street	Susan Elizabeth Lancaster Lake
	Jal, NM 88252	P.O. Box 144	Steve D. Mantooth
	Jal, NM 88252	P.O. Box 646	Stanley D. Reeves
	Odessa, TX 79761	2030 Andrews Hwy.	Soutwest Texas Fuels Inc.
	Amarillo, TX 79170	P.O. Box 1261	Southwestern Public Service Co.
	Jal, NM 88252	P.O. Box 464	Silvio Cervantes
	Jal, NM 88252	P.O. Box 464	Silvio & Mary Ellena Cervantes
	Grand Junction, CO 81501	2890 C 1/2 Rd	Shirley A. Jones
	Jal, NM 88252	P.O. Box 921	Sherman Tipton
	Jal, NM 88252	P.O. Box 414	
	Jal, NM 88252	P.O. Box 1077	Sergio & Debra K. Garcia
	Jal, NM 88252	P.O. Box 352	Scott Locklar
	Jal, NM 88252	P.O. BOX 479	Saul A. Monroy
	Jal, NM 88252	P.O. Box 464	Santa Frano
	Blossom, TX 75416	Rt. 1 Box 141B	Samuel Richard Cooper
	Jal, NM 88252	P.O. Box 517	Samuel D. Snider
	Jal, NM 88252	P.O. Box 785	Samuel Carrasco
Jal, NM 88252	P.O. Box 1203	c/o Becham Ranch	Sam R. Beckham
	Jal, NM 88252	P.O. Box 108	Sally E. Grando
	Jal, NM 88252	P.O. Box 565	Salamon S. Ramos
	Jal, NM 88252	P.O. Box 41	Salamon D. Tavarex
	Jal, NM 88252	P.O. Box 517	S.D. Snider
	Jal, NM 88252	P.O. Box 373	S. L. Hewett
	Jal, NM 88252	P.O. Box 263	m
	Jal, NM 88252	P.O. Box 1057	S. A. Searcy
	Jal, NM 88252	P.O. Box 981	Ruth R. Ely
	Jal, NM 88252	P.O. Box 981	Ruth Ely Trust
	Roswell, NM 88201	300 S Kentucky	Russell J. Whited
	Jal, NM 88252	P.O. Box 597	Russell D. Martin
	Jal, NM 88252	c/o Rita S. Watson	Russ Watson
	Hobbs, 88240	8100 W Alabma	Runco Inc
	Jal, NM 88252	P.O. Box 69	Ruel Gatewood
	Jal, NM 88252	P.O. Box 756	Ruben Ramos
	Jal, NM 88252	P.O. Box 444	Ruben Lujan

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San Francisco, CA 94163	P.O. Box 63931	Corporate Properties	Wells Fargo Bank
	Jal, NM 88252	P.O. Box 1063	Wayne W. Webster
	Jal, NM 88252	P.O. Box 1267	Wanliss E. Armstrong, Trust
	Jal, NM 88252	P.O. Box 504	W. V. Huntington
	May, TX 76857	100 Lake Shore	W. R. & Eva Stuart Est
	Kermit, TX 79745	P.O. Box 1079	W. P. Jackson
	Jal, NM 88252	P.O. Box 1026	W. M. Kemp
	Jal, NM 88252	P.O. Box 909	W. L. Dungan
	Jal, NM 88252	P.O. Box 1078	W. K. Cooper
	Carlsbad, NM 88220	403 South Mesa	W. H. Taylor, Jr.
	Jal, NM 88252	P.O. Drawer A	W. H. Brininstool
	Jal, NM 88252	P.O. Box 1119	W. Fred Sappington
	Jal, NM 88252	P.O. Box 304	W. E. Ferguson and Lola Marie Morrow
	Jal, NM 88252	P.O. Box 844	Vivian M. Franco
	San Antonio, TX 78232	1306 North Eva	Virginia M. Bassett
	Las Cruces, NM 88001	2080 Austin Drive	Virginia Baeza Carillo
	Jal, NM 88252	P.O. Box 739	Vincent Savala
	Jal, NM 88252	P.O. Box 509	Victor V. Brothers
	Jal, NM 88252	P.O. Box 890	Victor G. Rodriguez
	Jal, NM 88252	P.O. Box 196	Vicki R. Pearce
	Jal, NM 88252	P.O. Box 504	Vernon Huntington, Trust
	Jal, NM 88252	P.O. Box 297	Vernon D. Rheay
	Jal, NM 88252	P.O. Box 674	Velia Velasquez
	Jal, NM 88252	P.O. Box 128	Velia D. Cordova
	Ruidoso, NM 88345	Bogie Lane A-1 Box 13	Veda Mae Gaskin
	Jal, NM 88252	P.O. Box 662	Vann M. Kidd, Jr.
	Jal, NM 88252	P.O. Box 442	Una Dell Watson
	Graham, TX 76046	P.O. Box 1240	Turnco Inc.
	Jal, NM 88252	P.O. Box 985	Truman Hamlett
	Jal, NM 88252	P.O. Box 1117	Travis G. Lenard
	San Angelo, TX 76902	P.O. Box 5581	Town & Country Food Stores Inc.
	Walnut Creek, CA 94595	1305 Blvd Waay #130	Tom Love & Ernestine M. Love
	Jal, NM 88252	P.O. Box 207	Tito P. Hernandez
	Jal, NM 88252	P.O. Box 585	Timoteo Perez
	Jal, NM 88252	P.O. Box 595	Thomas W. Seyler, Sr.
	Jal, NM 88252	P.O. Box 1122	Thomas McBee
	Odessa, TX 79764	9412 Bedford Drive	Thomas G. Clinton
	Jal, NM 88252	P.O. Box 359	Thomas E. Deck
	Jal, NM 88252	Box 785	Theofilo Romero
	Hobbs, NM 88240	Box 1948	Theodore Johnson, et al

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NM Labels2

South Langlie Jal Unit Labels

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Wes & Roni Karen Perry	P.O. Box 371	Midland, TX 79702	
West Star Mortgage Corp.	c/o James Robert Gilmore	P.O. Box 215	Jal, NM 88252
Western Heights Inc	101 Woods Lane	Cedar Park, TX 78613	
Western Hts. Inc.	c/o David L. Hammons	P.O. Box 79	Jal, NM 88252
Wilburn D. Pirtle, Sr.	P.O. Box 1002	Jal, NM 88252	
Wilburn Donald Pirtle, Jr.	321 South Cedar St.	Kermit, TX 79745	
Willaim W. & Lucille Webb	P.O. Box 97	Jal, NM 88252	
William C. Webster	P.O. Box 702	Jal, NM 88252	
William Date Ragain	P.O. Box 43	Jal, NM 88252	
William E. Elliott	P.O. Box 264	Jal, NM 88252	
William F. Mosley, Jr.	P.O. Box 1351	Jal, NM 88252	
William H. Harris	P.O. Box 124	Jal, NM 88252	
William R. & Donnie W. Green	P.O. Box 1103	Jal, NM 88252	
William W. Webb	P.O. Box 92	Jal, NM 88252	
Williard Redden	P.O. Box 108	Jal, NM 88252	
Woolworth, C D Trust	c/o Jal Pupblic Library Fund	P.O. Box 178	Jal, NM 88252
Youths Activity	P.O. Box 340	Jal, NM 88252	
Yvonne Frymire	P.O. Box 193	Jal, NM 88252	
Zia Natural Gas Company	P.O. Box 541	Worland, WY 82401	

.

Clay Osborn P. O. Box 1285 Jal, New Mexico 88252

October 4, 2001

RECEIVED

Lori Wrotenbery New Mexico Oil Conservation Division 1220 South St. Francis Dr. P. O. Box 6429 Santa Fe, New Mexico 87505 OCT 0 9 2001

ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

RE: South Langlie Jal Unit

Dear Ms. Wrotenbery:

Enclosed please find the comments in response to the Chaparral Energy, Inc. stage one abatement plan presented for the South Langlie Jal Unit. Each response refers to specific comments as presented by Chaparral Energy, Inc.

Again, thank you for the opportunity to comment on this proposal. I look forward to your comments and response. Should you need further input or have questions, please do not hesitate to contact me at 505.395.2510 or 505.631.1900.

Respectfully.

Clay Osborn

Cc: Bill Olson New Mexico Oil Conservation Division P.O. Box 6429 1220 South St. Francis Drive Santa Fe, New Mexico 87505

3

October 4, 2001

From:

Mr. Clay Osborn Rocky Top Ranch P.O. Box Jal, New Mexico

RECEIVED

To:

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Director Oil Conservation Division 1220 St. Francis Dr. Santa Fe, New Mexico 87505 ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

Subject: Comments on the Chaparral Energy, Inc. "Amended South Langlie Jal Unit (SLJU) Stage I Abatement Plan," August 23, 2001

To the Director of the Oil Conservation Division;

Thank you for the opportunity to comment on the above referenced Abatement Plan submitted to the New Mexico Energy Minerals and Natural Resources Department, Oil Conservation Division by Chaparral Energy, Inc. Comments are sequential and are as follows;

EXECUTIVE SUMMARY:

"... the USGS has stated that the once potable ground water in this area started to become nonpotable as early as 1953."

COMMENT: The context of the USGS report is that intentional and accidental releases of crude oil, natural gas, and produce brine water from oil and gas operations have generally had a negative impact on the near surface ground waters in southern Lea County. Indeed, ground water in some areas of the Osborn property are not potable, however, non impacted ground water is present and protectable, i.e., The Pond Monitoring Well, Section 18 T25S R37E, July 2001, Chloride 239 mg/L and Total Dissolved Solids 1280 mg/L.

"Chloride contents of 610 ppm and higher has been found in several shallow water wells in the Jal, New Mexico area at this time.

COMMENT: Table 8, USGS Report #6, Nicholson and Clebsch, 1961, does record a 1953 chloride level of 610.mg/L in Section 15 three miles to the east but also shows chloride in a section 20 well within 1 mile of the Osborn property to be 168 mg/L in 1942. Section 19, adjacent to the section 18 on the south has a 1942 recorded chloride value of 54 mg/L.

"Since the injection of saltwater in the SLJU did not begin until early 1971, it is highly improbable that this unit was the cause of any of the groundwater contamination of Mr. Osborn's wells. COMMENT: The fact the SLJU did not begin injection until 1971 is immaterial and does not support the conclusion that the SLJU is not the source of the current soil and ground water contamination on the Osborn property. Rather, the historical USGS data referenced previously establishes a relatively pristine ground water resource prior to the development of the areas' oil and gas resources on the Osborn property.

1.4 SITE HISTORY:

"(According to the USGS) Chloride contents of 610 ppm and higher was found in several water wells in the Jal, New Mexico area at that time."

COMMENT: This statement is inaccurate. The 610 ppm chloride value is the highest value recorded for the eight wells listed in the report that exist in T25S R37E.

"Chloride pollution of the shallow aquifer appears to cover most of Lea County, New Mexico."

COMMENT: This statement implies that **all** shallow ground water in Lea County has been degraded by chloride pollution, this is clearly not the case, however, point sources such as historic pits and unremediated leaks and spills are potential contaminant source terms.

1.5 SUMMARY OF PREVIOUS INVESTIGATIONS

"Sampling and testing showed some high chloride levels, but it also indicated the damage done was either from much earlier releases (prior to Bristol taking over operations of the unit), releases from offsite or the chlorides could be naturally occurring."

COMMENT: The leaks and spills that have occurred within the unit on the Osborn property have contributed to the degradation of the aquifer. Migration of contaminants from a source up-gradient of the Osborn property needs to be determined. Evidence provided in the USGS report #6 Table 8 clearly shows that the background ground water chloride levels are <100 mg/L.

2.1 SITE GEOLOGY AND HYDROLOGY

Paragraph 2, 2^{nd} & 3^{rd} sentences - "Triassic rocks in the area have a regional dip of less than 1 degree to the southeast. There are reverse dips in the area generally around depressions. Groundwater flow tends to follow this regional dip within the area of the SLJU."

COMMENT: The USGS Report #6 Plate 2. Ground-Water Map of Southern Lea County, New Mexico, is included in the Abatement Plan on page 22 and indicates that, on the Osborn property, the aquifer surface contour to be south southwest not to the southeast. This should be confirmed and will be important, as each point source is studied.

2.2 VERTICAL & HORIZONTAL EXTENT OF THE POLLUTION

Paragraph 2, 2^{nd} sentence; "Water samples shall also be taken and analyzed for BTEX, TDS, Chlorides (Cl), Bromides (Br), Bicarbonates (HCO₃), Sulfate (SO₄), Magnesium (Mg), Potassium (K), and Sodium (Na) in an attempt to determine the presence of natural waters in the area as opposed to waters from oil and gas production operations."

COMMENT: A definition of "natural waters" should be provided and consider especially the historical data provided in the USGS Report #6, 1961.

2.3 MAGNITUDE OF VADOSE-ZONE & GROUNDWATER CONTAMINATION

"Vadose-zone contamination has not been determined."

COMMENT: Previous studies commissioned by Bristol and the Osborn's have identified vadose-zone contamination above background levels.

2.6 INVENTORY OF WATER WELLS....

COMMENT: The first sentence should read "one-mile radius" instead of "one-mile perimeter."

3.0 SURFACE-WATER HYDROLOGY

 3^{rd} sentence – "No lakes, ponds, creeks or streams were seen during the course of a recent physical investigation of the surface, only very shallow and broad areas that can conduct floodwater runoff were seen."

COMMENT: A manmade pond is located in the western part of section 18 T25S R37E that receives run-off from the west and is used as a livestock watering. This pond may be dry during parts of the year depending on rainfall. The Osborn's also have a pond on the east side of their home located on the east side of Section 18 and is maintained with local ground water.

3.4 IMPACT TO SURFACE WATER AND STREAM SEDIMENTS

"Any release of produced water onto the surface will have little to no impact upon surface waters and stream sediments."

COMMENT: A study of the surface dip should be made to confirm the impact on the Osborn ponds. Likewise, the Jal Lake is located down gradient and also may ultimately receive run-off from the Osborn property and the surrounding area.

3.5.1 BIOLOGICAL ASSESSMENT OF FISH

"There are no known fish in this area."

COMMENT: The Osborn's have several mature Japanese Koi in the house pond. The pond in the southwest corner of section 18 does not have a permanent fish population.

3.5.3 BIOLOGICAL ASSESSMENTS OF BENTHIC MACROINVERTEBRATES

"There are no known benthic macroinvertebrates in this area."

COMMENT: Benthic macroinvertebrates, i.e., insect larvae and small crustaceans are endemic to all surface water bodies where the water chemistry promotes survival. Surveys of the benthic macroinvertebrates can provide a rapid assessment of water quality.

The context of the abatement plan is too general and incorrectly assumes that the ground water resource underlying the Osborn property was initially of poor quality. The plan must first inventory the leak sites and focus on identifying and characterizing these specific locations to ensure against further ground water degradation. Similarly, the locations of the proposed "test holes to the base of the aquifer," will provide valuable information toward characterizing the aquifer but will not provide information as to vertical and horizontal extents of contamination at specific leak or spill sites and, in particular, the chloride concentration gradients in the vadose zone and ground water. More "test holes" should be planned for each inventoried leak site. Finally, to rule out the possibility of well casing failure, the abatement plan should review and verify that the producing and injection wells on the Osborn property have passed all the NMOCD required casing integrity tests in the past.

Included below are Attachments I, II, III, and IV, i.e., Clay Osborn Ranch Journal, Leak Photographs, USGS map with known leak sites, and Bristol Resources file documentation, respectively.

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Attachment I: Clay Osborn Ranch Journal

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	Clay Osborn Ranch Journal
Date	Entry
January 11, 1997	Injection line leak west of the tank battery.
April 18, 1997	Leak west of tank battery ran east past TB then south on lease road. Estimate volume ~200 barrels of salt water.
April 19, 1997	Water still standing in road. Had to tell Bristol pumper to get truck to pick up water. Geo Willis; witness.
May 4, 1997	Bristol had 2 injection line leaks north of the house. Had been leaking several days.
May 5, 1997	Water standing in Bell hole. (Pictures)
April 16, 1998	Injection line leak next to Winters "C" lease, called OCD. No water recovered. Estimated spill volume @ 100 to 150 bbls out. All went into ground.
September 1, 1998	Injection line leak north of well #9. Leaked long time. Estimated volume of spill is ~200 to 500 bbls. Backhoe drove all over our pasture. No water recovered. All went into ground.
January 10, 1999	Injection line leak north of house. Had been leaking for a long time. Estimated 800-1000 bbls out. No water recovered. Was at site with roustabouts. Cow walked on wet ground. Went down to front shoulders. I called OCD.
January 11, 1999	Found another leak north of the house 9:30 PM. Ran ^{1/4 mil} called OCD talked to Chris. 500-1000 bbls out. No water recovered.
January 18, 1999	Had to call OCD. Injection line leak @ well #4. Water was running out of line. Line clamp would not hold. They also had a leak inside yard @ pump station.
February 13, 1999	Found Injection line leaks south of pump station and west of pump station. Took pictures. Also found leak south of pump station south side of road. Another leak inside pump station yard. Water and oil ran west into pasture. Another leak west of production tank battery, north side of road. Also pumper for Bristol opened valves on bottom of tanks and ran water and oil west into pasture.
March 8, 1999	Bristol had injection leak inside pump station yard. Ran south into pasture.
March 26, 1999	Bristol had a large leak south of pump station 25-35 bbls estimated. Also found another leak inside pump station yard. (Video #2)
April 19, 1999	Injection line leak south of pump station. Used topsoil and grass to cover up with. Meet new lady pumper.
April 20, 1999	Found another leak inside yard & pump station. Shows lots of salt on surface. (Video #3)

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Clay Osborn Ranch Journal						
Date	Entry					
May 8, 1999	All wells in SLJU SI. Found leak @ pump station. & Well #4 vegetation west of well #9 dying.					
May 27, 1999	Pipe in ground-oil running out south side of Tank Battery. (Video)					
June 9, 1999	Bristol well #9 had leak ran into pasture. Johnson Construction cleaning up. (Video) Sink hole west of #9 spotted on injection line right-of-way (video)					
June 16, 1999	Cornerstone on location. Digging core holes north of house.					
July 3, 1999	Bristol pumper let tanks run over. Opened bleed valves on bottom of tank and ran salt water on pump station location 30-60 bbls ran out. (took video) Opening valves was a deliberate act.					
July 11, 1999	SLJU SI for 8 days now.					
July 17, 1999	Bristol water tanks back in service. P&M construction did not put gasket on manhole plate west tank. Salt water 30-40 bbls ran south across pump station location. Ground now has heavy salt build up.					
July 20, 1999	Bristol starting digging old TB west of house.					
July 20, 1999	Bristol drilling water well north of house.					
August 10, 1999	Bristol had flowline leak @ well #25. Oil and water out.					

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Attachment II: Leak Photographs

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BRISTOL RESOURCES INJECTION LINE LEAK SOuth OF Well #9



BRISTOL RECOURCES CORP.



09/01/1998

Injection line keak

NORTH OF WELL #9

09/01/1998

BRISTOL RECOURCES CORP. SLJU



TANK VALVES OPENED EAST TANK 50 TO 60 BBLS OUT

TANK AT PUMP STATION

07/03/1999

Attachment III: USGS Map with Known Leak Sites

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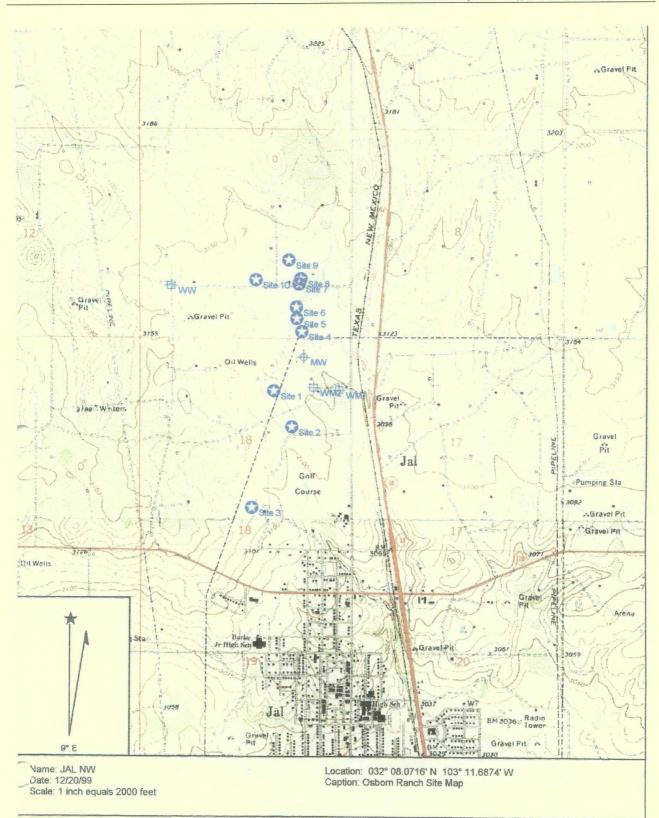
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Copyright (C) 1997, Maptech, Inc.

Attachment IV: Bristol Resources file documentation

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16-Aug-99

BRISTOIS Files Re: Oil/Water Leaks South Langlie Jal Unit Listed Below are the only two reports found at the OCD Office Map Date: <u>Size</u> Location Reported 4/24/98 20'x20' 22 Water Eddie Elliot 11/30/98 25'x40' 22 Water Yes Other Leaks that were reported by Bristol or Clay Osborne but no confirmation report was available at the OCD office. Мар Date: Size Location Fluid Lost Reported 1/10/99 Water Yes Injection leak between well # 9 and Well # 13 WI 1/11/99 Water Yes Injection leak in front of the oil storage battery in the middle of the road 1/15/99 Water Yes Injection leak inside the Water Injection Tank Battery 4/10/99 Yes Injection leak inside the Water Injection Tank Battery 4/19/99 Yes Injection leak at the corner of the main road to water station

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ALC: NO

South State

To: Dan Abney

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4/23/99 Yes Injection leak at WI well # 4 small drip no fluid out did not report 5/20/99 Clay Osborne lock gate to Water Station and install a keep out sign 5/27/99 Gate to water station was unlocked and sign removed. 6/10/99 Yes Pump stuck on Well # 9 polish rod pulled out of stuffing box 7/3/99 Yes Hole in West 500 BBls water tank 7/17/99 Yes Gasket not installed properly on West 500 BBls tank leakingat manway

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ALC: NO.

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Section of

18 W. M.

8/10/99 Flowline leak on well # 25 Dresser Sleeve replaced on fiberglass line October 1, 2001

Director of the Oil Conservation Division 1220 St. Francis Dr. Santa Fe, NM 87505

Re: Letter from Chaparral Energy, Inc. 9-26-01

Dear Sirs/Madam:

I am responding as an interested party or person with the following comment:

The State of New Mexico is aware of our water wells having chlorides which are too high to use on our pecan orchard. Jerry Sexton, a Hobbs employee spent a lot of time and effort here not long before he retired from his job at the office in Hobbs. Mr. Sexton told us our wells were too badly contaminated to use on our pecan orchard and took many samples, etc.

We no longer use these wells to water the pecan orchard or anything else on our property.

We are very interested in where the water was contaminated and the party responsible held liable.

Thank you for your consideration in this matter

Sincerely,

mill E. Bailey

Darrell E. Bailey

Darrold E. Stephenson and JoAn R. Stephenson P. O. Box 749 Jal, New Mexico 88252

30 September 2001

New Mexico Energy, Minerals, and Natural Resources Department Attn: William C. Olson, Hydrologist Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

RECEIVED

OCT 1 0 2001

ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

Re: Stage 1 Abatement Plan Proposal for Chaparral Energy Inc.

Dear Mr. Olson:

We own property with two pumping water wells, adjoining Clay Osborn in Jal, New Mexico. There will be an attachment to this letter of a copy of laboratory testing of both of these wells. Both wells are so contaminated that the water is not potable. It has been undrinkable for several years. Due to increased contamination of our wells, the vegetation including some trees has died. We have testing to prove that year by year the contamination has increased.

Chaparral Energy has submitted a Stage 1 Abatement Plan Proposal for the South Langlie Unit site located near Jal, New Mexico in portions of Sections 7, 8, 17, and 18 of Township 25 South, Range 37 East, NMPM, Lea County, New Mexico. They do operate or have operated injection wells at this site.

We do agree wholeheartedly that Chaparral needs to conduct the investigation to determine site geology and hydrogeology; conduct a registered water well search within a one (1) mile radius of the site; install monitoring wells; collect soil samples for field screening and/or laboratory analysis from each boring; collect ground water samples for laboratory analysis from each monitoring well; obtain depth to ground water measurements and calculate ground water gradient and direction; survey all well locations by a professional land surveyor registered in the state of New Mexico and prepare a report summarizing field activities and laboratory results. We do not, however intend to pay for any of the expenses of the proposed abatement plan. We have already been out considerable expense on the testing of our wells. We, the property owners are not responsible for the mess that has been made of our water supply. Owners of these oil wells should be responsible!

We do believe that we have the constitutional right to the enjoyment of our property. That right has been infringed on due to the fact that our enjoyment has been taken away by the contamination of our wells.

If this trend continues, we fear the citizens of Jal, New Mexico will one day be without water to drink!

Thank you for your consideration in this matter.

Sincerely. Darrold E. Stephenson

JoAn R. Stephenson

Attachments: Copy of Well test Data/ Darrold & JoAn Stephenson Property List of Citizens Concurring with Darrold & JoAn Stephenson



PHONE (915) 673-7001 . 2111 BEECHWOOD . ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR SAFETY & ENVIRONMENTAL SOLUTIONS, INC. ATTN: BOB ALLEN 703 E. CLINTON, SUITE #103 HOBBS, NM 88240 FAX TO: (505) 393-4388

Receiving Date: 01/12/00 Reporting Date: 01/17/00 Project Number: NOT GIVEN Project Name: STEPHENSON Project Location: NOT GIVEN Sampling Date: 01/12/00 Sample Type: GROUNDWATER Sample Condition: COOL & INTACT Sample Received By: GP Analyzed By: AH

LAB NUMBER	SAMPLE ID	NITRATES (mg/L)	NITRITES (mg/L)
ANALYSIS DAT	E:	01/13/00	01/13/00
H4572-1	HOUSE WELL	1.26	0.06
H4572-2	GEODECKE WELL	2.10	0.06
Quality Control		3.28	0.26
True Value QC		3.00	0.25
% Recovery		109	104
Relative Percent Difference		2.7	1.0

METHOD: EPA 600/4-79-020, 352.1, 354.1

PLE As a Syna Bundling and Damages. Cardinal's liablify and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatscever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 . 101 E. MARLAND . HOBBS, NM 88240

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Receiving Date: 01/12/00 Reporting Date: 01/17/00 Project Number: NOT GIVEN Project Name: STEPHENSON Project Location: NOT GIVEN Sampling Date: 01/12/00 Sample Type: GROUNDWATER Sample Condition: COOL & INTACT Sample Received By: GP Analyzed By: AH

	Na	Ca	Mg	K Conductivity	T-Alkalinity
LAB NUMBER SAMPLE ID	(mg/L)	(mg/L)	(mg/L)	(mg/L) (u mhos/cm)	(mgCaCO ₃ /L)

ANALYSIS D	ATE:	01	/14/00	01/13/00	01/13/00	01/13/00	01/13/00	01/13/00
H4572-1	HOUSE WELL	1	482	187	72	9.5	2670	152
H4572-2	GEODECKE WELL		483	167	73	9.4	2720	172
Quality Contr	ol		NR	80.0	48.7	5.00	1392	NR
True Value Q	C		NR	80,0	50.0	5.00	1413	NR
% Recovery			NR	100	97.4	100	9 8.5	NR
Relative Perc	ent Difference		NR	0	0.6	0.8	0.2	NR
METHODS:			SM	3500-Ca-D	3500-Mg E	8049	120.1	310.1
			CI_	SO4	C _. O ₃	HCO3	pН	TDS
			mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(mg/L)
ANALYSIS D	ATE:	SCHE 01	/13/00	01/14/00	01/13/00	01/13/00	01/13/00	01/14/00
H4572-1	HOUSE WELL	250	461	981	0	185	7.13	2579
H4572-2	GEODECKE WELL	250	497	871	0	210	7.14	2713
Quality Contr	N		1010	48.63	NR	971	7.03	NR
True Value Q			1000	50.00	NR	1000	7.00	NR
% Recovery			101	97.3	NR	97.1	100	NR
	ent Difference		10.0	2.9	NR	3.0	0.1	, , , , , , , , , , , , , , , , , , , ,
METHODS:		SM4500	LCLR	375.4	310.1	310.1	150.1	160.1
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PLEASAGE PLEASAGE PLEASAGE ADDITED and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. به السالية الم

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WE CONCUR WITH THE VIEWPOINT OF DARROLD & JOAN STEPHENSON CONCERNING STAGE 1 ABATEMENT PLAN FOR CHAPARRAL ENERGY, INC.

FONZY & Susie Abeyta	501 W. Nebraska St.	PO. Box 158
Jerre & Jaraine Kear	614 Furth oth	Po. Box 156
CLAUD & VIKKI RIVES	409 S. OTH	P.O. Box 1162
Community & Inma Samanicego	609 5ths. 6th	JAL, KR.M.
Baton & marylunker	20 Sandy June	Jul, N. M. P. Box 634
Alum M. aven	28 Sandy For	Al Daw Mulica
Looil Castlo	521. 8.5TA	Sal thew Mokec
Burtine forwage	606 50. 8th	Del, h. mero.
Freh Juli	703 EASY ST.	Jal M. 88252
the Bukette	P14 Penler	Jal NM 11252
Martin Dava 10 Ulis	116 W. Debraska	Jal, NM 88252
Allert P. Marting	62057.14	Dal: 1.14.88252
Deborah Sheek	601S. 4th ST	Jel 88252
herrie shagep	B3046 Neurada	88252-
Porunda Shangka	416 5. 44	Jac NM 88252
Letreia Lujan	902 Ocho Rd	Jal NM 88252
ML Janter P	806 Poplar	Jal NM 38252
Stut Poses	803 Hackberr	(Jal, NM 88250
June Bagon	811 Och R	Jal 11 1 86252
alokin Granado	505 5.4H.	Jul NM 88252
Chillana Lujan	221 N. 5th	Gal 1/1 88252
Tlama Augur	909 Oak	Juc NM 88252
andrew I. Valace	611 S. 5th St- 4	hal N.M. 88353
Charlatte Volke	611 8 5th St C	Jal, NM, 88252
Kor fue	437 So 2Nd St	C)al A M 8852
Jaam Bailgy	P.O Box 1225	Wal NM 88252
Perpeg Super	120. Box 1225	Sel NM 88257
S Multing)	4.0. May 46g	45C/11/ 8852
Zie Hutlay	+0K 1207	Jal n.m. 88253
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LIST OF CITIZENS CONCURRING WITH DARROLD & JOAN STEPHENSON

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<u>WE CONCUR WITH THE VIEWPOINT OF DARROLD & JOAN STEPHENSON</u> CONCERNING STAGE 1 ABATEMENT PLAN FOR CHAPARRAL ENERGY, INC.

Richard Posey	803 HUCKberry	P.D. Box 796
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IVA LEE CALLEY RIGGS

Post Office Box 3896 West Sedona, AZ 86340

Phone: 928/ 282-7177 Fax: 928/ 204-9096 ivagen@email.mon.com

September 29, 2001

Robert C. Lang, Environmental, Health & Safety Manager CHAPARRAL ENERGY, INC. 701 Cedar Lake Boulevard Oklahoma City, OK 73114-7806

Thank you for my copy of the New Mexico Oil Conservation Division Regulations, Stage One Abatement Plan Proposal.

I do not believe that I own any royalty leased to Chaparral Energy, Inc. Nor am I familiar with the South Langlie Jal Unit site located near Jal, New Mexico in portions of Sections 7, 8, 17 and 18 of Township 25 South, Range 37 East, NMPM, Lea County, New Mexico.

I DO own royalty in Sections 14, 21, 22, 23, and 27, Township 24 South, Range 37 East, NMPM, Lea County, New Mexico. Also Section 31, Township 23 South Range 36 East, NMPM, Lea County, New Mexico.

The last Division Order, dated January 5, 1987, effective July 1, 1986, for Lease or Unit known as Langlie Mattix WF Unit (Tracts 1 thru 6) was to Citation Oil and Gas Corp., 16800 Greenspoint Park Drive, South Atrium, Suite 300 Houston, Texas 77060-2304 713/874-9877

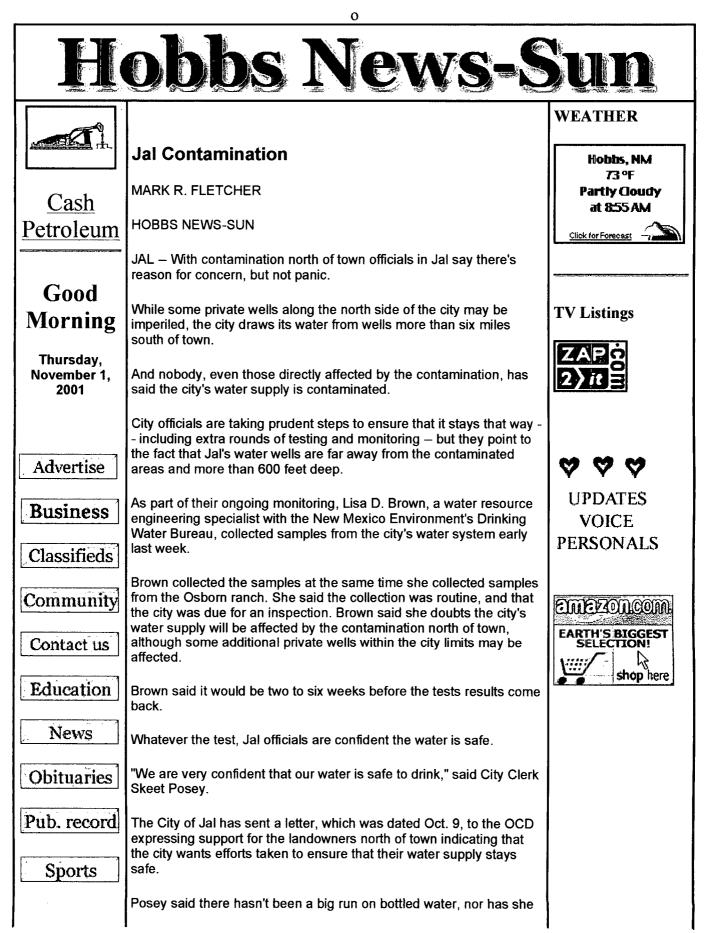
Please inform me if this information is incorrect.

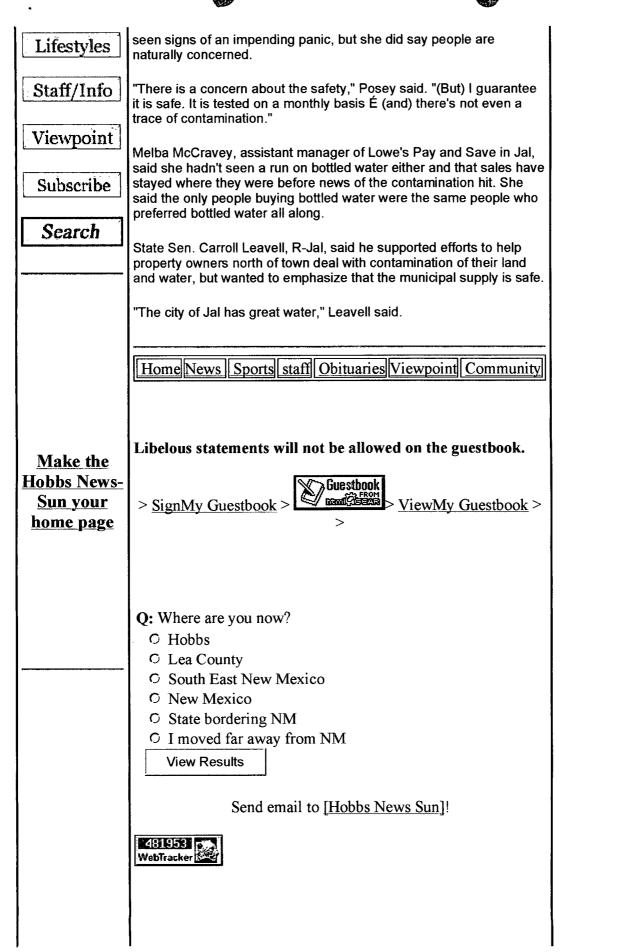
Sincerely,

Iva Lee Calley Riggs, Royalty Owner

cc: Citation Oil and Gas Corp. [Address Above] Director of the Oil Conservation Division 1220 St. Francis Drive Santa Fe, N.M. 87505

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Olson, William

From:Olson, WSent:Tuesday,To:SalisburyCc:WrotenberSubject:Briefing of

Olson, William Tuesday, October 30, 2001 4:13 PM Salisbury, Jennifer Wrotenbery, Lori; Anderson, Roger; Williams, Chris Briefing on Chaparral - South Langlie Jal Unit Abatement Plan

Lori wanted me to brief you on an issue that has begun to receive publicity in the Jal area. Attached is a copy of a news article on an Abatement Plan that the OCD has required in Jal, New Mexico. The article appeared in the Sunday Hobbs News Sun. The site that is being discussed is the South Langlie Jal Unit operated by Chaparral Energy, Inc. The site is an oil and gas production unit that abuts the Jal Golf Course. The surface is largely a local ranch owned by Clay and Jeri Osborn. Their ranch house is just north of the golf course.

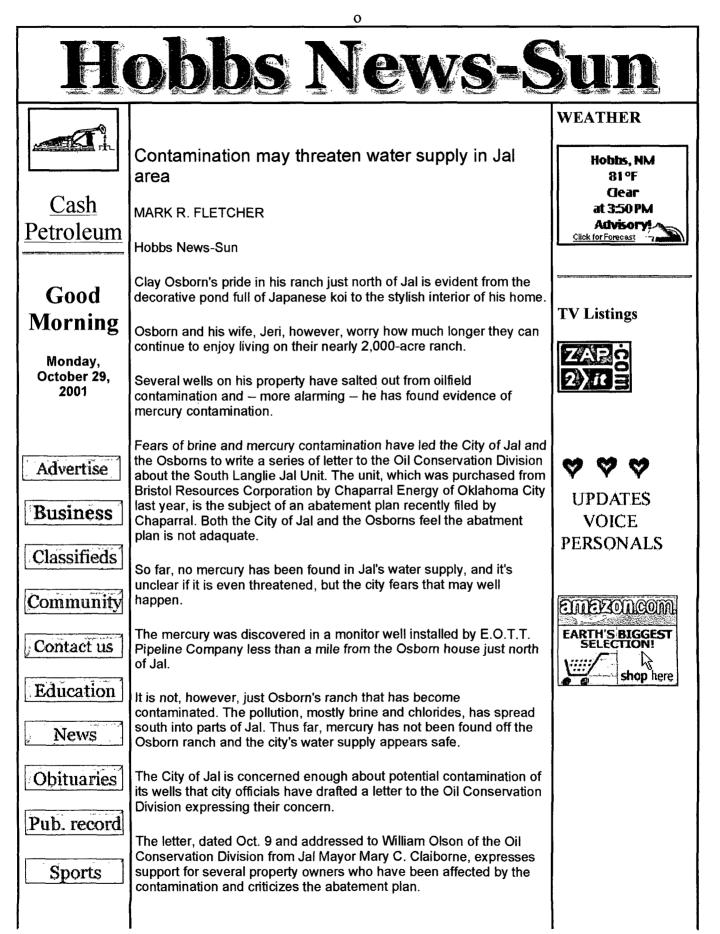
In 1999 the OCD Hobbs District Office was working on remediation of a spill from a produced water line with Bristol. Resources who, at that time, operated the unit. The investigations revealed that contamination migrated vertically into the ground water and that the ground water was contaminated with chlorides and total dissolved solids. At that time, Mr. Osborn notified the OCD that their house and ranch water wells downgradient of the spill had recently become contaminated with chlorides and total dissolved solids and that they could not drink the water. At this point, the case was referred to the Environmental Bureau.

We subsequently met with Mr. Osborn and he showed us a number of spill and pit contamination sites on the unit upgradient of the house and ranch wells. Subsequently, the OCD required that Bristol submit a Stage 1 abatement plan pursuant to OCD Rule 19. Apparently, Bristol had filed for bankruptcy and Bristol's assets were then purchased through the bankruptcy proceedings by Chaparral. The OCD then required that Chaparral, as the current operator of the unit, submit a Stage 1 Abatement Plan. Currently, the exact source of contamination of Mr. Osborn's well has not been determined. The purpose of the plan under the rule is to determine the extent of contamination related to their facilities on the unit and then to submit a plan to remediate the sites.

Recently, Chaparral submitted this plan to the OCD. Once the plan was submitted Chaparral was required, under the rule, to issue public notice in the newspaper and written notice to city and county governments and all landowners within 1 mile of the site. The public and written notice was just completed on approximately October 25th. The OCD received public comments from Mr. Osborn, a few other local landowners, the City of Jal and Carroll Leavell, representing the Jal Public Library which is also an adjacent landowner.

I expect to complete a technical review of the investigation plan and the public comments within the next week and respond in writing to Chaparral. Let me know if you need any more information.





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Environment Department amples. Lisa D. Brown, a the Environment oversees only public water as involve possible nples at his home and the



Most alarming for Stephenson, his wife, JoAn, has tested positive for mercury. Tests conducted earlier this year by a Roswell physician showed very elevated levels of mercury.

Stephenson said he has not heard of anyone else in the area testing positive for mercury levels, and said they are not sure yet what the source of the positive results were. He said the mercury could have come from old dental fillings or some other source, but with mercury found closely in Osborn's land, they are also concerned the material may have found its way into the ground water.

"We've got to start eliminating all these sources and find out where it's coming from," Osborn said.

While the possibility of mercury contamination is still somewhat speculative, the brine and cholride levels are not.

After finding the wells contaminated with chlorides and brine, Osborn shut off most of his wells and allowed the stock ponds on his ranch to dry up. In spots where the spills were particularly large, entire swaths of vegetation have simply died, leaving only the open sandy soil and a few salt-tolerant weeds. The Osborns have been hauling water from town to use for drinking and cooking for more than a year.

"We're getting awful tired of hauling," Osborn said.

The area in question, the South Langlie Jal Unit, is currently owned by Chaparral Energy. That company is not, however, the one responsible for the contamination.

Chaparral bought the unit out of bankruptcy when it acquired Bristol Resources. The company admits it didn't particularly want that area, and knew there was some pending litigation because of the contamination.

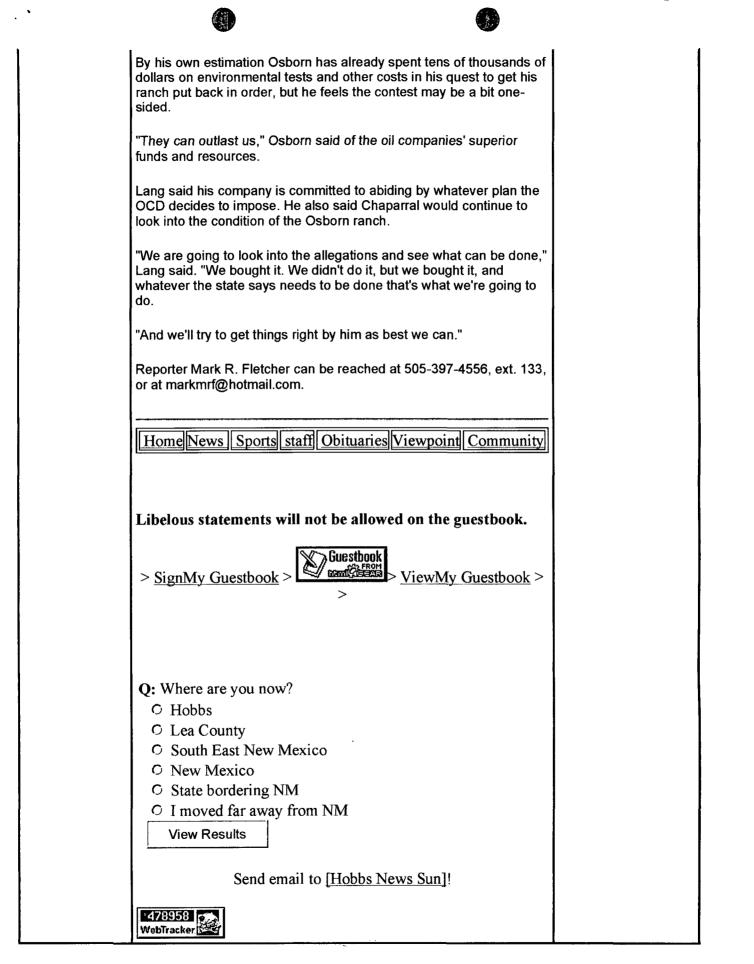
"We did buy it out of bankruptcy, (and) initially it was not part of the sales package. But when you go into a bankruptcy like that you don't always have it come out the way you want it to," Lang said.

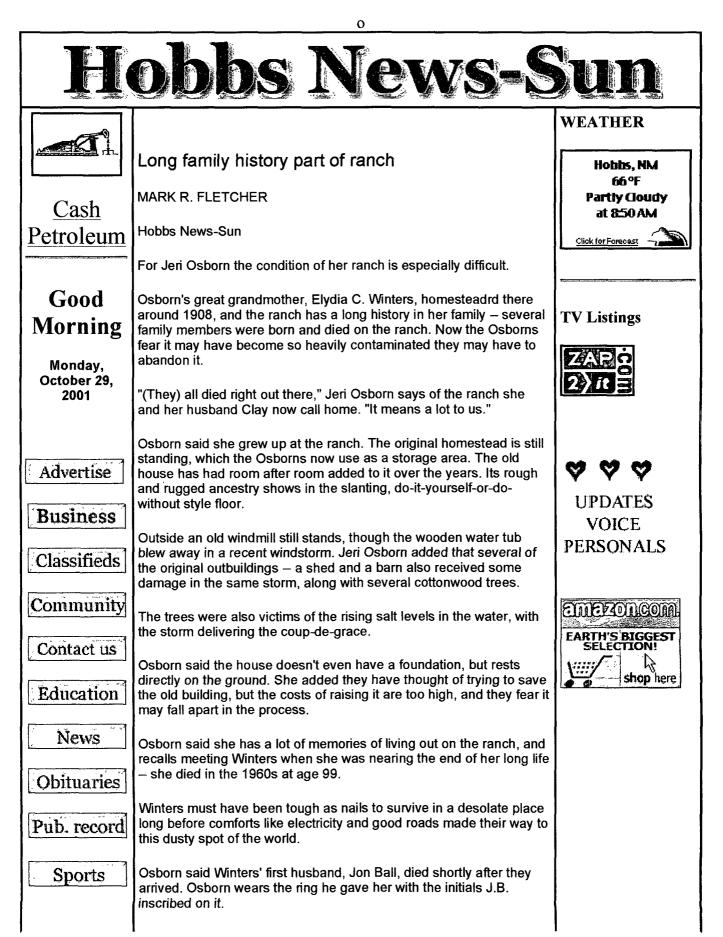
He also said that it's not fair to single out one company. He especially points out that the SLJU area has been in use since the earliest days of the oilfield in Lea County – perhaps as far back as the 1920s – and that makes it hard to pin responsibility on just one person or company. He also notes that the soils in the area make ground water contamination especially easy.

"The problem is widespread; you can pin blame on just about anybody in that part of the country be they in the oil business, the cattle business or any other business," Lang said. "Your soils are such that anything you spill on the ground will eventually more than likely wind up in the aquifer. There's no totally impermeable barrier between the surface and the first aquifer."

Lang also points out that not all the wells in the area are contaminated, and that it would be premature to place all the responsibility on Chaparral until further tests have been done.

"I have no reason to doubt Mr. Osborn," Lang said. "It appears that he does have a water problem. But there are also É wells from this same zone where the water is very good and not too far from him."
Although Chaparral is not the company that caused the contamination, it is the owner and must file an abatement plan. The company filed a stage-1 abatement with the OCD in August to start the process of deciding what cleanup procedures should be taken. This is the same plan the City of Jal wrote a letter in response to, and Osborn also finds the abatement plan inadequate.
"The context of the abatement plan is too general," Osborn wrote in his rebuttal to Chaparral's plan, "and incorrectly assumes that the ground-water resources underlying the Osborn property was initally of poor quality."
Lang, who authored Chaparral's plan, has pointed out that elevated levels of chlorides have been detected as far back as the early 1950s, long before Bristol or Chaparral became involved.
"They've been contaminated for quite some time," Lang said.
For their part, the Osborns said they aren't after a big settlement; they simply want Chaparral to put their land back in order.
"What we're after is our land restored and our water restored," Jeri Osborn said.
The Osborns say they wanted to retire on the ranch. The area has particular sentimental value for them since Jeri's great-grandmother homesteaded the property in 1908.
Jeri Osborn said they continue to stick it out on their ranch because they hope eventually something will change.
We keep hoping somebody will help," she said.
Osborn said over time his attempts to document the leaks and spills Bristol was responsible for became something of a contest.
 "When they found out I was a cowboy with a camera, they tried to get out here to cover it up before I could get here," Osborn said.
Osborn's documentation efforts often paid off. In a letter from Olson to officials at Bristol about their environmental assessment of conditions on Osborn's ranch, Olson notes that OCD staff visited the ranch and found things weren't quite the way Bristol said they were.
"In addition, the OCD's inspection and Mr. Osborn's documents show that there are several other BRC (Bristol Resources Corporation) spill sites upgradient of Mr. Osborn's wells that were not addressed in BRC's environmental assessments," the letter reads.
"It's just sickening sometimes, the amount of damage that's been done," Osborn said. "You get mad is what you do."





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Lifestyles	The Osborns began buying up the property from the other heirs; most of whom she says were willing to sell.						
Staff/Info	"I always wanted to come back," Osborn said.						
Viewpoint	Osborn said she wants to keep up their fight to get their land and water cleaned up because they like the place, not only for its long family history – but because it's just a beautiful spot.						
Subscribe	Both Osborns speak lovingly of the wide-open clear view they have in several directions and the star-bedecked night sky that arches over their ranch.						
Search	"We like it here, it's nice and quiet," Jeri Osborn said.						
	She still hopes they can find a way to get their property restored, but admits that she sometimes worries that it may not be possible.						
	"Yes. That thought is out there," she said of having to abandon the property, "but we sure don't want to."						
	Reporter Mark R. Fletcher can be reached at 505-397-4556, ext. 133, or at markmrf@hotmail.com.						
	Home News Sports staff Obituaries Viewpoint Community						
<u>Make the</u> <u>Hobbs News-</u> <u>Sun your</u> <u>home page</u>	Libelous statements will not be allowed on the guestbook. > <u>SignMy Guestbook</u> > > <u>ViewMy Guestbook</u> > >						
	Q: Where are you now? O Hobbs D Lea County O South East New Mexico O New Mexico O State bordering NM O I moved far away from NM View Results Send email to [Hobbs News Sun]!						

Olson, William

From:
Sent:
To:
Subiect:

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Bob Lang [bobl@chaparralenergy.com] Monday, September 17, 2001 8:30 AM 'Olson, William' RE: South Langlie Jal Unit

Yes, I understand written notice goes out first. I plan to send it to all those you listed on the floppy disk as well as all parties contiguous to the Unit. We will be sending a landman to the area to get names and addresses.

Bob Lang Environmental, Health & Safety Manager (405) 478-4643 Ext. 1130 (O) (405) 478-4162 (F)

bobl@chaparralenergy.com <mailto:bobl@chaparralenergy.com>

----Original_Message-----From: Olson, William [mailto:WOLSON@state.nm.us] Sent: Friday, September 14, 2001 2:39 PM To: 'Bob Lang' Subject: RE: South Langlie Jal Unit

The notice is to be published just once in each publication. However, as stated in OCD's correspondence you need to issue written notice pursuant to Rule 19.G.(1)prior to the publication.

----Original Message----From: Bob Lang [mailto:bobl@chaparralenergy.com] Sent: Friday, September 14, 2001 11:55 AM To: Bill Olson (E-mail) Subject: South Langlie Jal Unit

Bill,

I have been trying to call your office, but every number I try is a busy signal. Hopefully, this will get through.

I have received your letter approving our Abatement Plan. I am in the process of having the letter published in the newspapers per your letter, but no one seems to know how often it is to be published. I've heard every day for a week/month, only once, once a week for a month. Most say "I don't know." Could I have some direction please.

Thanks.

Bob Lang Environmental, Health & Safety Manager (405) 478-4643 Ext. 1130 (O) (405) 478-4162 (F)

bobl@chaparralenergy.com <mailto:bobl@chaparralenergy.com>



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON Governor Jennifer A. Salisbury Cabinet Secretary Lori Wrotenbery Director Oil Conservation Division

September 10, 2001

Mr. Carroll H. Leavell Board of Trustees of the Jal Public Library Fund P.O. Box 178 Jal, New Mexico 88252

RE: GROUND WATER ABATEMENT PLAN (AP-18) CHAPARRAL ENERGY – SOUTH LANGLIE JAL UNIT

Dear Mr. Leavell:

Lori Wrotenbery asked me to respond to your August 16, 2001 correspondence requesting information on the abatement plan for Chaparral Energy, Inc.'s (Chaparral) South Langlie Jal Unit located in portions of Sections 7, 8, 17 and 18 of Township 25 South, Range 37 East, Lea County, New Mexico.

Pursuant to OCD Rule 19, the OCD required an abatement plan because of contamination of Mr. Clay Osborn's water wells and the fact that upgradient oilfield operations (formerly operated by Bristol Resources Corporation but recently purchased by Chaparral) were shown to have a number of leaks and spills, one of which was shown to have contaminated ground water in excess of state standards. The abatement plan is broken into 2 stages, a Stage 1 Abatement Plan Proposal and a Stage 2 Abatement Plan Proposal.

The purpose of the Stage 1 Abatement Plan Proposal is for the responsible person to determine the magnitude and extent of contamination that is related to their operations. The rules require that the responsible person provide public notice of the plan and allows a 30 day period for receipt of public comments. Based upon a technical review of the proposal and consideration of the public comments, the OCD resolves deficiencies in the proposal with the responsible person and issues administrative approval of the Stage 1 Abatement Plan. The responsible person then conducts the investigations at the site and provides a Stage 1 Investigation Report to the OCD for approval.

Once the extent of contamination has been determined, the responsible person is required to submit a Stage 2 Abatement Plan Proposal which contains a proposed plan to remediate the site to state standards. The rule also requires that the responsible person provide public notice of the plan and allows a 30 day period for receipt of public comments and public requests for a hearing on the merits of the plan. A request for a public hearing must be in writing and must include the reasons Mr. Carroll H. Leavell September 10, 2001 Page 2

why a hearing should be held. Based upon a technical review of the proposal and consideration of the public comments, the OCD attempts to resolve deficiencies in the proposal with the responsible person and then determines whether the Stage 2 Abatement Plan is administratively approvable or denied. If the plan is administratively denied, the applicant will be notified and it will be its responsibility to request a hearing appealing the denial. If the Stage 2 Abatement Plan is determined to be administratively approvable, the OCD will notify the applicant and all intervenors of the conditions under which the plan would be approved. All intervenors will be allowed fifteen (15) days from receipt of the determination to notify the OCD whether they still wish to proceed to hearing.

Recently, Chaparral filed a Stage 1 Abatement Plan Proposal to investigate the extent of contamination at the site. This proposal is available for public inspection at either the OCD Santa Fe Office or the OCD Hobbs District Office. The OCD has included your name as an intervenor in this case and you will receive copies of all OCD correspondence concerning the abatement plan.

The OCD appreciates your input on the issues relating to this abatement plan. If you have any questions or comments, please do not hesitate to contact me at (505) 476-3490 or Bill Olson of my staff at (505) 476-3491.

Sincerely:

Roger C. Anderson Environmental Bureau Chief

RCA/wco

xc: Lori Wrotenbery, Director
 Chris Williams, OCD Hobbs District Supervisor
 Robert Lang, Chaparral Energy, Inc.
 Clay Osborn



NEW MEXICO ENERGY, MIRERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON Governor Jennifer A. Salisbury Cabinet Secretary Lori Wrotenbery Director Oil Conservation Division

September 7, 2001

<u>CERTIFIED MAIL</u> RETURN RECEIPT NO: 5357-7898

Mr. Robert C. Lang IV Chaparral Energy, Inc. 701 Cedar Lake Blvd. Oklahoma City, Oklahoma 73114-7806

RE: STAGE 1 ABATEMENT PLAN PROPOSAL (AP-18) SOUTH LANGLIE JAL UNIT JAL, NEW MEXICO

Dear Mr. Lang:

The New Mexico Oil Conservation Division (OCD) has reviewed Chaparral Energy, Inc.'s (Chaparral) August 22, 2001 "AMENDED SOUTH LANGLIE JAL UNIT STAGE I ABATEMENT PLAN" and March 23, 2001 "SOUTH LANGLIE JAL UNIT STAGE I ABATEMENT PLAN". These documents contain Chaparral's proposed Stage 1 abatement plan for investigation of the extent of contamination related to Chaparral's South Langlie Jal Unit located in portions of Sections 7, 8, 17 and 18 of Township 25 South, Range 37 East, Lea County, New Mexico.

The OCD has determined that the above referenced Stage 1 Abatement Plan Proposal is administratively complete. Before the OCD can complete a review of the Stage 1 proposal, the OCD requires that:

- 1. Chaparral issue by September 22, 2001 the enclosed Stage 1 notice of publication in the Albuquerque Journal, Lovington Daily Leader and Hobbs News Sun pursuant to OCD Rule 19.G.(2).
- 2. Prior to issuing public notice, Chaparral shall issue written notice of the Stage 1 proposal pursuant to OCD Rule 19.G.(1). Enclosed you will find a 3.5" disk containing a "Word" listing "those persons, as identified by the Director, who have requested notification" pursuant to OCD Rule 19.G.(1).(d). The disk also contains the contact for the New Mexico Trustee for Natural Resources.

3. Chaparral provide the OCD with proof of publication and proof of written notice by October 9, 2001.

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If you have any questions, please contact Bill Olson of my staff at (505) 476-3491.

Sincerely,

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Roger C. Anderson

Environmental Bureau Chief

RCA/wco

enclosures

cc: Chris Williams, OCD Hobbs District Office Clay Osborn Carroll H. Leavell

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 Division Regulations, the following Stage 1 Abatement Plan Proposal has been submitted to the Director of the Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

Chaparral Energy, Inc., Robert C. Lang, Environmental, Health & Safety Manager, Telephone (405) 478-8770, 701 Cedar Lake Blvd., Oklahoma City, Oklahoma, 73114-7806, has submitted a Stage 1 Abatement Plan Proposal for the South Langlie Jal Unit site, located near Jal, New Mexico in portions of Sections 7, 8, 17 and 18 of Township 25 South, Range 37 East, NMPM, Lea County, New Mexico. Chaparral Energy, Inc. operates oil and gas production and injection wells at the site. Chloride and total dissolved solids in excess of New Mexico Water Quality Control Commission standards have been observed in ground water at the site. The Stage 1 Abatement Plan Proposal presents the following subsurface investigation activities: determine site geology and hydrogeology; conduct a registered water well search within a 1 mile radius of the site; install monitoring wells; collect soil samples for field screening and/or laboratory analysis from each boring; collect ground water measurements and calculate the ground water gradient and direction; survey all well locations by a professional land surveyor registered in the State of New Mexico; and prepare a report summarizing field activities and laboratory results.

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 Stage 1 Abatement Plan Proposal may be viewed at the above address or at the Oil Conservation Division Hobbs District Office, 1625 N. French Drive, Hobbs, New Mexico 88240, Telephone (505) 393-6161 between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed Stage 1 Abatement Plan Proposal, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which written comments may be submitted.

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Telephone	Personal	Time 1600) hrs.	Date	8/27/01	
	Originating Party	•		01	ther Parties	
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701 Cedar Lake Blvd. ◆
(405) 478-8770 ◆

Oklahoma City, OK 73114-7806 Fax: (405) 478-1947

22 August 2001

RECEIVED

AUG 2 8 2001

ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

New Mexico Energy, Minerals and Natural Resources Department Attn: William C. Olson, Hydrologist Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Amended South Langlie Jal Unit Stage I Abatement Plan

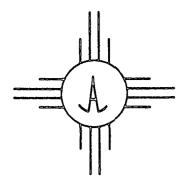
Dear Mr. Olson:

Attached is Chaparral Energy Inc.'s amended Stage I Abatement Plan for the unit. We are already collecting data for this operation. Should you require anything further please contact me at the numbers below.

Sincerely,

Robert C. Lang IV, REM, CEA Environmental, Health & Safety Manager (405) 478-4643 Ext. 1130 (O) (405) 478-4162 (F)

cc: Chris Williams, OCD Hobbs District Office Clay Osborn, Jal, New Mexico



TRUSTEES OF THE JAL PUBLIC LIBRARY FUND

P.O. BOX 178 JAL, NEW MEXICO 88252 OIL CONSERVATION DIV.

01 AUG 23 PM 12: 3 Belephone 505 395-2464

August 16, 2001

Ms. Lori Wrotenbery New Mexico Energy & Mineral Department **Oil Conservation Division** PO Box 6429 Santa Fe, New Mexico 87505

Dear Ms. Lori Wrotenbery,

The Board of Trustees of the Jal Public Library Fund will appreciate information from your department concerning future activity of Chaparral Energy on the South Langlie Jal Unit located in sections 8 and 17 of T25S, R37 E.

We would appreciate a copy of the abatement plan and to be kept informed of the activity and status of the above-mentioned property. Our concern is surface pollution and ground water pollution on the Trust Property.

Sincerely,

amold

Carroll H. Leavell Board of Trustees of the Jal Public Library Fund

CL/gm

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From: Sent: To: Subject: Bob Lang [bobl@chaparralenergy.com] Monday, August 13, 2001 9:15 AM Bill Olson (E-mail) South Langlie Jal Unit Abatement Plan

Bill,

Chaparral Energy Inc. sent my draft of the Stage 1 Abatement Plan for this unit to an attorney in Santa Fe for review, corrections, additions, etc. several weeks ago. I still have not seen or heard anything from them or from our corporate counsel about it. I am pushing for a reply not later than this week, but honestly do not know when it will come back from Santa Fe. Hopefully, all will be ready to go by the end of August.

I hereby request an extension until 31 August 2001 to get the Stage 1 Abatement Plan to you.

Robert C. Lang IV, REM, CEA Environmental, Health & Safety Manager (405) 478-4643 Ext. 1130 (O) (405) 478-4162 (F) bobl@chaparralenergy.com



From: Sent: To: Subject:

Bob Lang [bobl@chaparralenergy.com] Monday, July 16, 2001 11:27 AM 'Olson, William' RE: South Langlie Jal Unit Abatement Plan AP- 18

Bill,

Thank you. We are still awaiting the legal files form Bristol. Supposedly, there is much more we have not seen in these files and I do not wish to repeat what has already been done. We have been promised the files this week. As soon as I know more I will contact you.

Robert C. Lang IV, REM, CEA Environmental, Health & Safety Manager (405) 478-4643 Ext. 1130 (O) (405) 478-8559 (F)

> -----Original Message-----From: Olson, William [mailto:WOLSON@state.nm.us] Sent: Monday, July 16, 2001 11:04 AM To: 'Bob Lang' Subject: RE: South Langlie Jal Unit Abatement Plan Importance: High

The below referenced extension request is approved.

From: Bob Lang [SMTP:bobl@chaparralenergy.com] Sent: Wednesday, July 11, 2001 4:25 PM To: Bill Olson (E-mail) Cc: Bob Kelly; Jim Miller; Mike Rossiter; Mark

Fischer

Subject: South Langlie Jal Unit Abatement Plan

Bill,

We need to request a two week extension on replying to your Notice of Violation on the South Langlie Jal Unit. We have requested data from the field and from the previous owner (promised but not yet delivered) that we need in order to better respond to the State's We requirements. hope to have the Stage I Abatement Plan ready for submission to you not later than 27 July 2001. Should this not be acceptable, please let me know as soon as possible and we will submit what we have already put together. Thank you,

1



Bob



Robert C. Lang IV, REM, CEA Environmental, Health & Safety Manager (405) 478-4643 Ext. 1130 (O) (405) 478-8559 (F)





Olson, William

From:Olson, WilliamSent:Monday, July 16, 2001 10:04 AMTo:'Bob Lang'Subject:RE: South Langlie Jal Unit Abatement Plan

The below referenced extension request is approved.

From: Bob Lang [SMTP:bobl@chaparralenergy.com] Sent: Wednesday, July 11, 2001 4:25 PM To: Bill Olson (E-mail) Cc: Bob Kelly; Jim Miller; Mike Rossiter; Mark Fischer Subject: South Langlie Jal Unit Abatement Plan

www.

Bill,

We need to request a two week extension on replying to your Notice of Violation on the South Langlie Jal Unit. We have requested data from the field and from the previous owner (promised but not yet delivered) that we need in order to better respond to the State's requirements. We hope to have the Stage I Abatement Plan ready for submission to you not later than 27 July 2001.

Should this not be acceptable, please let me know as soon as possible and we will submit what we have already put together.

Thank you,

Bob

Robert C. Lang IV, REM, CEA Environmental, Health & Safety Manager (405) 478-4643 Ext. 1130 (O) (405) 478-8559 (F)



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON Governor Jennifer A. Salisbury Cabinet Secretary Lori Wrotenbery Director Oil Conservation Division

June 13, 2001

CERTIFIED MAIL RETURN RECEIPT NO: 3771-7378

Mr. Robert C. Lang IV Chaparral Oil, LLC 701 Cedar Lake Blvd. Oklahoma City, Oklahoma 73114-7806

RE: NOTICE OF DEFICIENCY SOUTH LANGLIE JAL UNIT ABATEMENT PLAN (AP-18)

Dear Mr. Lang:

The New Mexico Oil Conservation Division (OCD) has reviewed Chaparral Oil, LLC's (Chaparral) March 23, 2001 "SOUTH LANGLIE JAL UNIT STAGE I ABATEMENT PLAN". This document contains Chaparral's Stage 1 Abatement Plan for the South Langlie Jal Unit located in Sections 7, 8, 17 and 18 of Township 25 South, Range 37 East, Lea County, New Mexico.

While the above-referenced document contains a summary of prior site investigative actions, the document is deficient because it does not contain a work plan to investigate the extent of contamination related to Chaparral's South Langlie Jal Unit. In order to correct this deficiency, the OCD requires that Chaparral submit, pursuant to OCD Rule 19.E.(3), a Stage 1 investigation work plan to design and conduct a site investigation that will adequately define site conditions, and provide the data necessary to select and design an effective abatement option. The plan shall be submitted to the OCD Santa Fe Office by July 13, 2001 with a copy provided to the OCD Hobbs District Office.

If you have any questions, please contact Bill Olson of my staff at (505) 476-3491.

Sincerely,

100

Roger C. Anderson Environmental Bureau Chief

cc: Chris Williams, OCD Hobbs District Office Clay Osborn Olson, William

From:	Wrotenbery, Lori
Sent:	Monday, June 11, 2001 2:48 PM
To:	Williams, Chris
Cc:	Catanach, David; Ross, Stephen; Olson, William
Subject:	RE: South Langlie Jal Unit

Thanks for the update.

From:Williams, ChrisSent:Monday, June 11, 2001 1:53 PMTo:Wrotenbery, LoriSubject:South Langlie Jal Unit

I just received a response from Chaparral Energy. They are going to send a plan in with in 60 days to P&A the wells in the unit and TA possibly two for use as disposal wells in the future. Also, they are putting into a letter to me, CC you that the SLJU #4 was not shut-in during 1999,2000 but Bristol did not flile C115's for that time period. Chaparral does have the volumes disposed of from that time period. They will send in amended C115's for that time period, along with their plan.





701 Cedar Lake Blvd. ♦ Oklahoma City, OK 73114-7806 (405) 478-8770 ♦ Fax: (405) 478-1947

23 March 2001

New Mexico Energy, Minerals and Natural Resources Department Attn: William C. Olson, Hydrologist Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505



Re: South Langlie Jal Unit Stage I Abatement Plan

Dear Mr. Olson:

Attached is Chaparral Energy Inc.'s initial Abatement Plan covering the possible pollution of groundwater by past oil and gas production operations. Steps are already being taken to remediate the unit surface and gather data pertaining to possible soil and groundwater contamination. Should you require anything further please contact me at the numbers below.

Sincerely,

Robert C. Lang IV, REM, CEA Environmental, Health & Safety Manager (405) 478-4643 Ext. 130 (O) (405) 478-2034 (F)

cc: Chris Williams, OCD Hobbs District Office Clay Osborn CHAPARRAL ENERGY, INC.

701 CEDAR LAKE BOULEVARD OKLAHOMA CITY, OKLAHOMA 73114-7806

STAGE 1 ABATEMENT PLAN

FOR THE

SOUTH LANGLIE JAL UNIT

CONSISTING OF PORTIONS OF SECTIONS 7, 8, 17 & 18 TOWNSHIP 25 SOUTH – RANGE 37 EAST LEA COUNTY, NEW MEXICO

23 March 2001



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1.0 INTRODUCTION

1.1 EXECUTIVE SUMMARY

Chaparral Energy, Inc. (hereinafter referred to as Chaparral) purchased the New Mexico assets of Bristol Resources Corporation (hereinafter referred to as Bristol) in late October 2000 with an effective date of 1 July 2000. Part of this purchase is the South Langlie Jal Unit (hereinafter referred to as SLJU) located along the northern edge of Jal, New Mexico. The surface owner upon whom this unit rests has reported his water wells have "salted out" in the aquifer located just below 45 feet from surface. Tests of his water wells over the years reportedly show a steadily increasing presence of chlorides to the point the water is no longer fit for human or livestock use. The New Mexico Energy, Minerals and Natural Resources Department has thus ordered Chaparral submit an abatement plan to investigate and abate ground water pollution underneath this unit.

1.2 SITE DESCRIPTION

The SLJU consists of parts of Sections 7, 8, 17 & 18 of Township 25 South, Range 37 East, Lea County, New Mexico, more precisely described as the E/2 SW/4, SE/4 and the SW/4 NE/4 of Section 7, the SW/4 of Section 8, the W/2 of Section 17 and the E/2 of Section 18, all lying in Township 25 South, Range 37 East, Lea County, New Mexico. (See Appendix A.1 and A.2)

1.3 SITE MAPS

1.3.1 7.5 Minute Series (1:24,000 Scale) Topographic Map (Composite using parts of the Jal NW Quadrangle and the Jal Quadrangle Maps, both dated 1969 and Photorevised in 1979.). See Appendix A.1.

1.3.2 Field Lease Map with the SLJU boundaries marked. Producing oil wells, saltwater injection wells and known monitoring wells are spotted on this map. See Appendix A.2.

1.4 SITE HISTORY

The SLJU sits in undeveloped rangeland just north of Jal, New Mexico. This area has been productive of oil and natural gas since the 1920's. Prior to the discovery of oil and gas in this area the property had been used as rangeland. Few improvements have been made to the area other than scattered homes, barns, corrals, and other outbuildings needed for ranching and the facilities necessary for oil and gas exploration and production. Adjoining properties, surface and subsurface, have been used in a like manner since this area was settled. From the information provided Chaparral there are at least five waterwells on the property that are, or recently have been, in use. Several other water wells and groundwater monitoring wells are located within a mile of the unit. The Jal Country Club has drilled and developed several water wells to support the vegetation on the country club grounds. These wells lie south of

Mr. Osborn's home in the southeast corner of Section 18-T25S-R37E, Lea County, New Mexico. To date, accurate and reliable well data on these wells as to their exact location and depth to groundwater has not been seen by Chaparral personnel. Bristol, Apache Corporation, Texaco Exploration and Production, Inc., Penroc Oil Corporation and possibly others have operated the SLJU or individual producing wells within the unit in the past, according to the information at hand.

1.5 SUMMARY OF PREVIOUS INVESTIGATIONS

Starting in January 1999, Cornerstone Environmental Resources, Inc. (hereinafter referred to as CERI), on behalf of Bristol, conducted a Phase II Environmental Assessment of the property. Trenches were dug along the paths of earlier saltwater releases, at abandoned tank battery sites and on other locations that warranted deeper investigation. Soil samples were taken in an attempt to ascertain the length, width and depth of any damage due to brine from pipeline leaks or other sources. Sampling and testing showed some high chloride levels, but it also indicated the damage done was either from much earlier releases (prior to Bristol taking over operations of the unit), releases from off-site or the chlorides could be naturally occurring. Talks were held with the NMOCD to determine the appropriate actions to be taken concerning these discoveries. The NMOCD directed Bristol to determine the source of the brine water thought to have impacted the groundwater or the environment and to perform vertical and horizontal delineation of the contamination by sampling for BTEX, TPH and Chlorides.

In June 19999, CERI conducted a second Phase II Environmental Assessment of the property. Six soil borings were made to depths of 20 to 25 feet to further delineate chloride concentrations at and near the site of a recent pipeline release just north of the SLJU Well #13 WIW. These borings were to ascertain the presence and concentration of BTEX and TPH, if any. BTEX above the detection limit of $20\mu g/kg$ was not found in any of the samples analyzed. TPH was found in several places above the detection range of 1 mg/kg. (See Tables attached.) TPH in the diesel range was found only near the surface of Soil Sampling Well #3 and TPH in the gasoline range was found near the surface of Soil Sampling Well #6. Ground water was reportedly not encountered in any soil sampling well.

In January 2000, CERI conducted a third Phase II Environmental Assessment of the property. This time three sites were evaluated for the deeper presence of hydrocarbon contamination. Site 1 was an abandoned oil and gas lease tank battery. A sign at the facility identified the site as the Winters "E" Lease Tank Battery located near the W/2 NE/4 of Section 18-T25S-R37E. All production vessels had been removed and only the battery fence, concrete blocks and some junk iron remained. Site 2 was another tank battery site without production vessels. No lease sign was present to properly identify the lease, but according to the topographic map the location is near the SE/4 SW/4 NE/4 of Section 18-T25S-R37E. Site number 3 was a former flare pit located west of an abandoned tank battery located near the SW/4 SW/4 SE/4 of Section 18-25S-37E and it too had no production vessels. Soil material was found on top of a plastic tarp just west of the pit, indicating contaminated soil had been removed by parties unknown and allowed to bio-remediate in place.

Samples at Site 1 were analyzed and found to have TPH GRO of 23.1 mg/kg and TPH DRO No BTEX was detected. The positive test came from heavy, dried of 13,900 mg/kg. hydrocarbon contaminated soils that had been scrapped up and piled in the northeast corner of the tank battery pad. This soil reportedly can be dug up and hauled to a proper disposal facility in that it is not very mobile hydrocarbon. Similar type hydrocarbon deposits were found at Site 2 and again no BTEX was detected. Testing in 1999, using EPA Method 8015 Modified, had detected TPH GRO of 1.55 mg/kg and TPH DRO of 4,160 mg/kg from this soil at the surface. Additional testing in June 2000, using EPA Method 418.1, detected TPH in the 8,000 to 8,800 mg/kg range at the surface. A surface sample at Site 3 showed TPH DRO of 24,300 mg/kg, but no BTEX or TPH GRO. Tests were also conducted on the soil that had been placed on the plastic tarp. BTEX, TPH DRO and TPH GRO were not detected. However, TPH using EPA Method 418.1 did detect TPH of 8,700 mg/kg from this source. CERI recommended the top six inches of soil at each site be removed for off-site disposal and the pit be backfilled with clean soil. Bristol and CERI felt that was all that would be necessary to bring these sites into full compliance with NMOCD regulations.

In March 2000, Safety & Environmental Solutions, Inc. (hereinafter referred to as SESI) reportedly conducted an Environmental Site Assessment on behalf of Mr. Clay Osborn, the surface owner. They reportedly made eight test borings around the Winters "E" Lease Tank Battery (SESI Site #1), four test borings at Cornerstone's second site located at SE/4 SW/4 NE/4 of Section 18-T25S-R37E (SESI Site #2) and three test borings near Cornerstone's Site #3 (SESI Site #3) in an attempt to determine the vertical extent of BTEX, TPH and Chloride contamination. Chlorides in soil were alleged to be in excess of 250 ppm to a depth of 45 feet from surface at all locations. The next set of test borings was reportedly made north of the SLJU #3 Water Injection Well and it appears SESI put in 6 bore holes to a depth of 25 feet. Several other sites were mentioned as being visually identified but not yet tested. A final site, which appears to be just south of Mr. Osborn's home, was identified by SESI as a place to install three test borings. From what Chaparral has been told, SESI sampled and tested the known water wells in the immediate vicinity of Mr. Osborn's home for the presence and concentration of chlorides. Reportedly, chloride concentrations ranged from 121 mg/l to 857 mg/l, but data was not provided on a specific well to well basis. Also, a sample of the water used by the City of Jal for watering the country club was analyzed and found to have a chloride concentration of 610 mg/l. Again, exactly which well was tested was not reported. This information is being sought.

2.0 WORKPLAN – SUBSURFACE

2.1 SITE GEOLOGY AND HYDROLOGY

Others have informed Chaparral that much of the site geology and hydrology has already been determined during the course of earlier borings, trenching and sampling of soil and water. According to the surface owner, an environmental firm has already drilled or identified several wells in Sections 7 and 18 of Township 25 South, Range 37 East. Soil and/or water samples have been taken from these wells and these samples have been analyzed for chlorides, BTEX, TPH and other contaminate. There exists the possibility

hydraulic conductivity, transmissibility and storativity calculations have already been performed, as well as rate and direction of contaminate migration. Chaparral Energy Inc. is under separate cover requesting copies of all such reports on file with the State of New Mexico Energy, Minerals and Natural Resources Department. Once this data is in hand it will be analyzed and a determination made as to what course of action needs to be taken to abate any pollution problem that may have come from SLJU operations.

2.2 VERTICAL & HORIZONTAL EXTENT OF THE POLLUTION

Several test borings apparently have been made throughout the unit area. However, the exact extent of any pollution, both horizontally and vertically, has not been adequately established. The proposed request for information from the state should help determine if chloride contamination extends off-site (off of the SLJU) and how much of the 45 foot aquifer is chloride contaminated. Existing data may also determine the source or sources of any contamination, or at least enable one to make a logical decision on where to drill next.

2.3 MAGNITUDE OF VADOSE-ZONE & GROUNDWATER CONTAMINATION

Vadose-zone contamination has not been determined. No report made available to Chaparral to date mentions a vadose-zone being encountered. It is hoped data on the vadose-zone and groundwater contamination is available in already completed reports. Should data be missing or otherwise unavailable this area shall be addressed in subsequent investigations and reports.

2.4 SUBSURFACE HYDRAULIC PARAMETERS, INCLUDING:

2.4.1 HYDRAULIC CONDUCTIVITY

This has yet to be determined.

2.4.2 HYDRAULIC TRANSMISSIBILITY

This has yet to be determined.

2.4.3 HYDRAULIC STORATIVITY

This has yet to be determined.

2.4.4 RATE OF CONTAMINATE MIGRATION

This has yet to be determined.

2.4.5 DIRECTION OF CONTAMINATE MIGRATION

Previous borings and measurements appear to indicate groundwater is moving to the southeast, possibly from the hills located north and west of Jal, New Mexico. This flow

crosses the unit and would cause pollution from sources west of the unit to pass underneath the property of Mr. Osborn and the City of Jal, New Mexico. Any proposed test well or wells should help confirm the direction of groundwater flow and the presence, or lack thereof, of chloride, BTEX and hydrocarbon contamination of the aquifer.

2.5 INVENTORY OF WATER WELLS INSIDE THE CONTAMINATED AREA

The true extent of groundwater contamination is not fully known at this time. From previous sampling it appears most all of the water wells underlying Mr. Osborn's surface have chloride concentrations in excess of permissible levels (250 mg/l). The same may possibly be said of the water wells used by the City of Jal, New Mexico in their golf course watering operations. Once the full extent of the contamination of these wells has been determined a more accurate water well count will be made. See the attached table provided by Bristol representatives listing known water wells in the area for a partial listing of water wells with known chloride contamination problems. At present, no reliable data has been seen as to the exact location and depth of any water well in the area. A survey by a licensed land surveyor may be required to accurately determine the location and elevation of all water wells. Water well owners in the area may need to be required to provide well data should said data not be a part of the State of New Mexico's records. A request is being made to the State of New Mexico State Engineer's Office for all data pertaining to water wells in the area. This data shall be incorporated into the initial report filled by Chaparral.

2.6 INVENTORY OF WATER WELLS WITHIN ONE-MILE OF THE PERIMETER OF THE THREE-DIMENSIONAL BODY WHERE THE STANDARDS OF SEC. 4103.B ARE EXCEEDED

The one-mile perimeter of the three-dimensional body where the standards of Section 4103.B are exceeded is not fully known at this time. Further examination of existing records is required to determine this perimeter after which an inventory can be conducted. A partial list of waterwells in the area is attached in the Appendix.

2.7 LOCATION OF SUCH WELLS ACTUALLY AFFECTED BY POLLUTION

A listing of known wells actually affected by pollution is attached to this document. See the Appendix.

2.8 LOCATION OF SUCH WELLS POTENTIALLY AFFECTED BY POLLUTION

Wells potentially affected by pollution is unknown at this time. Once this phase of the investigation is over a list will be prepared.

3.0 WORKPLAN – SURFACE

At the present time no written surface workplan has been prepared. Once this investigation is over and a source, or sources, of possible contamination have been determined a surface

workplan will be prepared that addresses the pollution of groundwater in the area. Steps are already underway to restore abandoned wellsites and remediate known areas of surface pollution on the SLJU.

3.1 SURFACE-WATER HYDROLOGY

A preliminary assessment of the surface water hydrology on the unit proper indicates a relatively flat surface cut by several shallow northwest to southeast running gullies. No intermittent streams or creeks nor any ponds or lakes are shown on the topographic map for the lands comprising the unit. No lakes, ponds, creeks or streams were seen during the course of a recent physical investigation of the surface, only very shallow and broad areas that can conduct floodwater runoff were seen.

3.2 SEASONAL STREAM FLOW CHARACTERISTICS

There are no streams or creeks on the surface of the unit. Erosional gullies contain flowing water only after heavy rainfall events and even then only for a very short period of time.

3.3 GROUNDWATER/SURFACE WATER RELATIONSHIPS

Based on the maps seen to date, a physical inspection of the property and conversations with those who claim to know the area, surface waters in the form of rainfall tend to soak into the ground very quickly. Just beneath the top soil (mostly sand) is a layer of fractured caliche and limestone, but they allegedly provide little to no protection for the aquifer.

3.4 IMPACT TO SURFACE WATER AND STREAM SEDIMENTS

Any release of produced water onto the surface will have little to no impact upon surface waters and stream sediments. Surface waters are seldom in the area and then only during storm events. There are no streams in the area where excess sediments would be a detriment to the stream.

3.5 MAGNITUDE OF CONTAMINATION AND IMPACTS ON SURFACE WATER

From visual inspections, no surface water exists nearby which can be contaminated.

3.5.1 BIOLOGICAL ASSESSMENT OF FISH

There are no known fish in this area.

3.5.2 BIOLOGICAL ASSESSMENTS OF BENTHIC MACROINVERTEBRATES

There are no known benthic macroinvertebrates in this area.

3.5.3 BIOLOGICAL ASSESSMENT OF OTHER WILDLIFE POPULATIONS

Any produced water that may been released on the unit lands does not appear to have had any affect on local wildlife. No pools or ponding of saltwater has been seen and surface soils appear to have absorbed any produced water that may have come into contact with the surface. Evaporation in this area is at such a rapid pace that little remains for wildlife to drink or become exposed to should produced waters pond.

4.0 MONITORING PROGRAMS

At the present time Chaparral does not have any monitoring wells in place on this unit. A physical investigation of the unit revealed a monitoring well just north of the SLJU Well #13 WIW. Bristol Resources supposedly put this in after a pipeline release in January 1999. Chaparral has no verifiable data from this well. From other correspondence it appears SESI does have, or at least has had, several monitoring wells located south of the injection well (Well #13) now owned by Chaparral.

4.1 SAMPLING STATIONS

At the present time Chaparral does not have any sampling stations in place on the unit. Bristol did have some sampling trenches and borings made by CERI, but they allegedly were closed. Some test trenches attributable to Bristol were found at several sites and they were not properly closed.

4.2 FREQUENCIES OF SAMPLING

Chaparral has no sampling points at this time. Present plans are to catch soil and water samples from any test wells put in and then properly abandon the well or wells. Soil samples shall be taken and tested where field-testing indicates pollution may exist. Water samples shall be taken and tested regardless of what field-testing indicates. Should these tests prove more work would be necessary then more permanent wells shall be installed and a water-sampling schedule established during the course of any second phase work.

4.3 LABORATORY TESTS TO BE RUN AND ANALYTES

Any planned groundwater-sampling program shall include testing the groundwater for chlorides, bromides and sulfates (Method 300); sodium, magnesium, potassium, calcium and metals (Method 200.7); and alkalinity (Method 310.1).

4.4 QUALITY ASSURANCE PLAN

The quality assurance plan used shall be consistent with the sampling and analytical techniques listed in Section 3107.B of 20 NMAC 6.2, Ground and Surface Water Protection.

4.5 SITE HEALTH AND SAFETY PLAN

A Site Health and Safety Plan is not needed at this time.

5.0 ACTIVITIES SCHEDULE

A Schedule of Activities is not needed at this time. Once a decision is made as to what is to be done to obtain more information or start abatement, an Activities Schedule will be drawn up and presented to the State of New Mexico for review and comment.

5.1 SUBMISSION OF QUARTERLY PROGRESS REPORTS

A report shall be prepared by Chaparral Energy Inc., or its agent, for submission to the NMOCD within 30 days of the receiving the requested data from the State of New Mexico and from Bristol's attorneys. With said report shall be a recommendation (or recommendations) as to further work deemed necessary.

5.2 SUBMISSION OF FINAL SITE INVESTIGATION REPORT

A final report submission date is unknown at this time, but Chaparral, or its agent, shall submit this report as required by the NMOCD.

6.0 ADDITIONAL INFORMATION

No additional information is provided.

6.1 FIGURES AND SITE DIAGRAMS

No new figures or site diagrams are submitted at this time. New figures and site diagrams shall be submitted after the initial office and fieldwork.

6.2 **PHOTOGRAPHS**

No photographs are available with this document. The reports submitted after each phase of work is completed should contain photographs as is warranted in the field.

6.3 LABORATORY REPORTS AND CHAIN OF CUSTODY FORMS

This document contains no laboratory reports or chain-of-custody forms. Subsequent reports may contain this material after samples are taken and analyzed.

6.4 **APPENDICES**

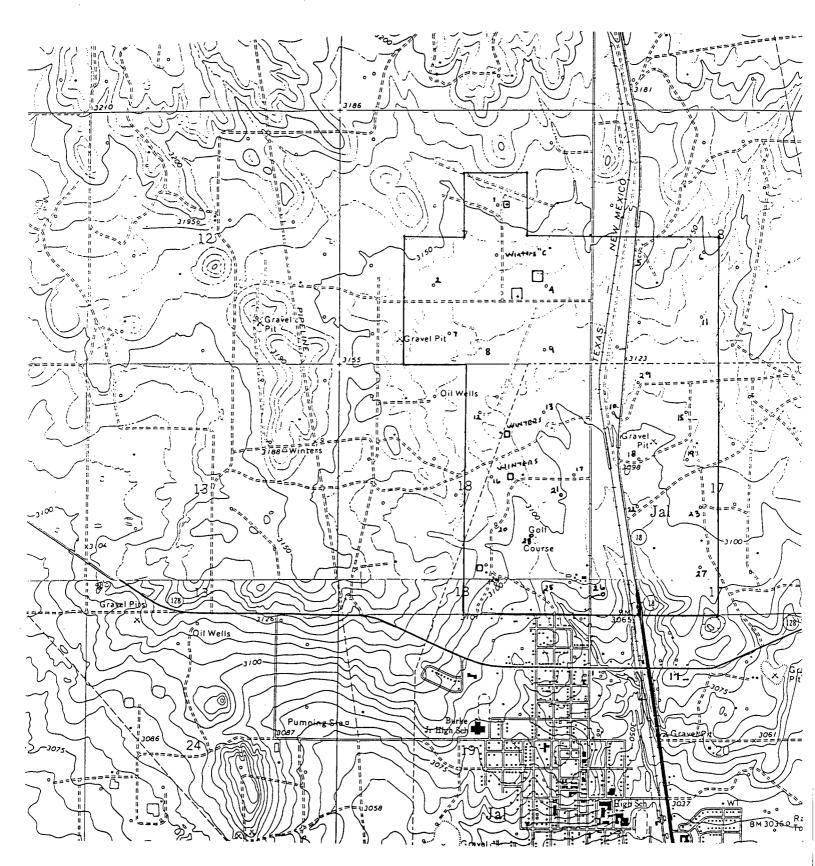
Appendices start on the next page.

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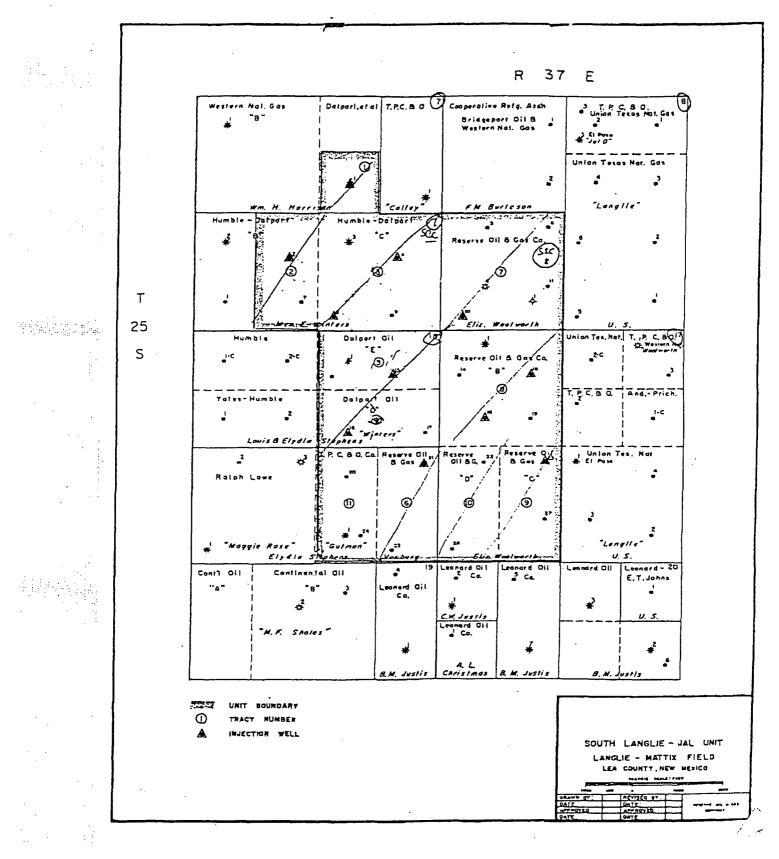
APPENDIX A

SITE MAPS

A.1 – 7.5 Minute Series (1:24,000 Scale) Topographic Map



A.2 - Field Lease Map with the South Langlie Jal Unit Boundaries Marked.



APPENDIX B WATER and MONITORING WELLS

List of Water and Monitoring Wells in the Vicinity of the Osborn Ranch, Jal, New Mexico (As provided by Bristol representatives from work submitted by Safety & Environmental Solutions, Inc.)

Well Name	Reported Location	Comment
Front House Windmill	NE SE NE NE	Owner's Well #4
	Sec. 18-T25S-R37E	
Main House Well &	NE SW NE NE	Owner's Well #1
Jal Country Club MW#11	Sec. 18-T25S-R37E	
Back House Well	NE SW NE NE	Owner's Well #2
	Sec. 18-T25S-R37E	
Bristol Resources Well	N/2 NE/4	Monitoring Well
	Sec. 18-T25S-R37E	
Front House Well	NE SE NE NE	Owner's Well #5
	Sec. 18-T25S-R37E	
North Water Well	NW NE SW SW	Owner's Well #6 Unused
	Sec. 18-T25S-R37E	
SW (TX-NM pipeline) Well	E/2 of Sec. 12 or 19-	Monitoring Well
	T25S-R37E	
Jal Country Club MW-3	SE	Production & Monitoring Well
-	Sec. 18-T25S-R37E	
Jal Country Club MW-4	SE	Production & Monitoring Well
	Sec. 18-T25S-R37E	
Jal Country Club NE MW	SE	Unused Well
-	Sec. 18-T25S-R37E	
Jal Country Club NW MW	SE	Unused Well
	Sec. 18-T25S-R37E	
Jal Country Club Windmill	SE	Plugged
& Jal Country Club MW#18	Sec. 18-T25S-R37E	
Jal Country Club MW-2	SE	Production & Monitoring Well
	Sec. 18-T25S-R37E	
West Water Well	SE	Owner's Well #3
	Sec. 18-T25S-R37E	
Jal Country Club Center MW	SE	Unused Well
	Sec. 18-T25S-R37E	
Section 13 Water Well	NE SE NE NE	Owner's Well #7
	Sec. 18-T25S-R37E	Unused

Wells 8 through 15, as well as several other wells located at the Jal Country Club, are reportedly registered with the State Engineer Office as Permit CP-473.

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NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON Governor Jennifer A. Salisbury Cabinet Secretary Lori Wrotenbery Director Oil Conservation Division

March 12, 2001

CERTIFIED MAIL RETURN RECEIPT NO: 5051-4195

Mr. Michael A. Rossiter Chaparral Oil, LLC 701 Cedar Lake Blvd. Oklahoma City, Oklahoma 73114

RE: NOTICE OF VIOLATION ABATEMENT PLAN (AP-18) SOUTH LANGLEY JAL UNIT

Dear Mr. Rossiter:

On October 31, 2000, the New Mexico Oil Conservation Division (OCD) required that Chaparral Oil, LLC. (Chaparral) submit an abatement plan to investigate and abate ground water pollution at Chaparral's South Langley Jal Unit Unit located in Sections 7, 8, 17 and 18 of Township 25 South, Range 37 East, NMPM, Lea County, New Mexico. To initiate the abatement plan process, the OCD required that Chaparral submit to the OCD by December 31, 2000 a Stage 1 Investigation Proposal pursuant to OCD Rule 19.E.1. and 19.E.3. On February 7, 2001, Chaparral e-mailed the OCD and stated that a response would be available by the end of February, 2001.

To date the OCD has not received a Stage 1 Abatement Plan Proposal as required. As a result Chaparral is in violation of OCD Rule 19.E.1. In order to correct this violation, the OCD requires that Chaparral submit a Stage 1 Investigation Proposal to the OCD by March 26, 2001. The proposal shall provide the information required in OCD Rule 19.E.3. Failure to provide a Stage 1 Investigation Proposal will result in issuance of an order requiring compliance with OCD rules and may include imposition of civil penalties.

If you have any questions, please contact Bill Olson of my staff at (505) 827-7154.

Sincerely,

Rogér C. Anderson Environmental Bureau Chief

xc: Chris Williams, OCD Hobbs District Office Clay Osborn

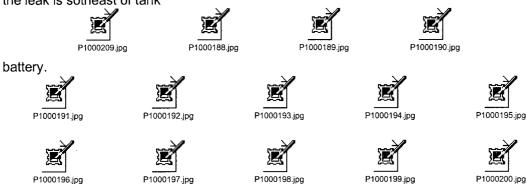
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From:	Clay & Jeri Osborn [SMTP:clayjeri.osborn@worldnet.att.net]
Sent:	Wednesday, February 14, 2001 1:56 PM
To:	BILL OLSON
Subject:	Chaparral USA

Bill ,

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I took some pictures of the SLJU well # 9 flow line leak. the leak is sotheast of tank









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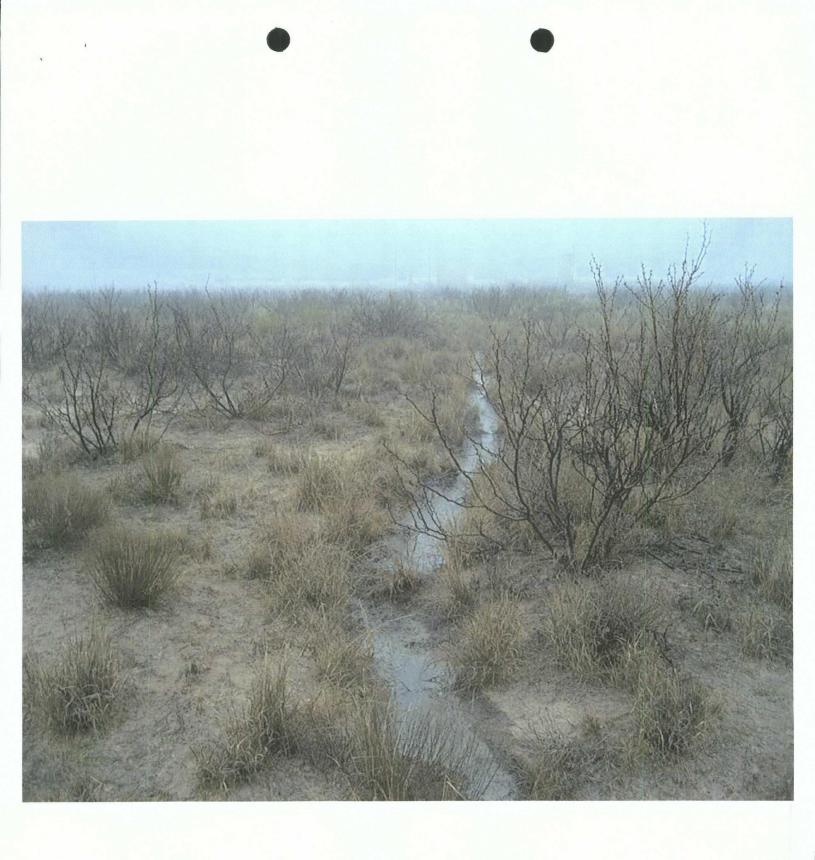


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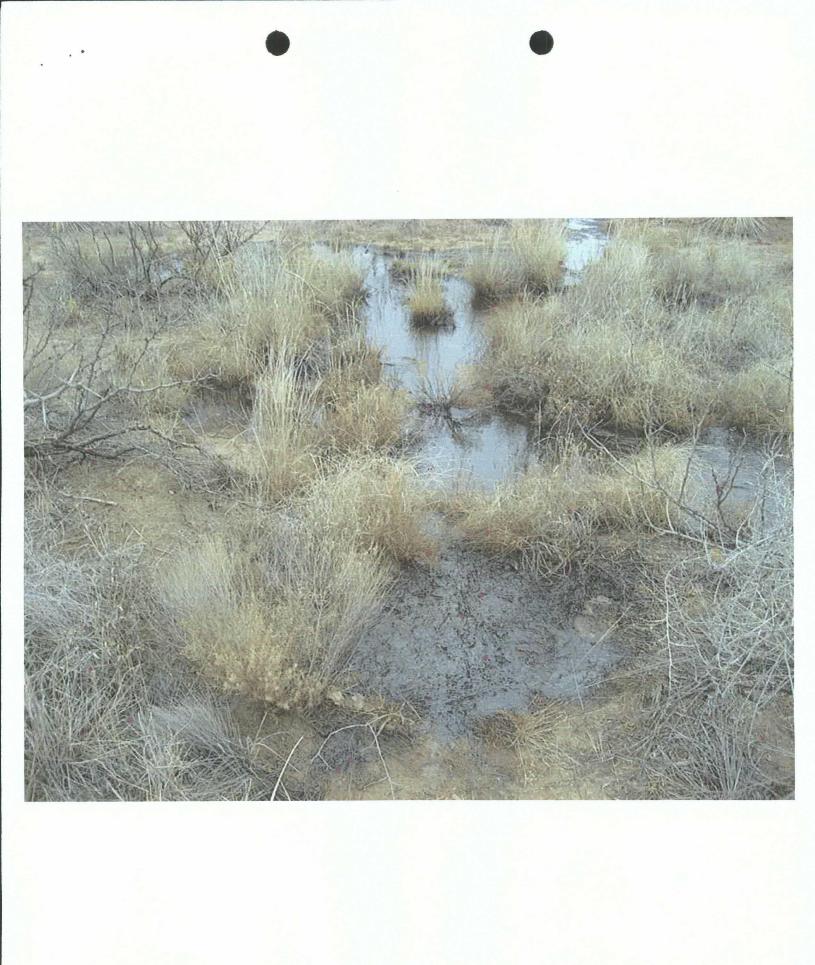
















NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON Governor Jennifer A. Salisbury Cabinet Secretary Lori Wrotenbery Director Oil Conservation Division

February 8, 2001

Clay & Jeri Osborn P.O. Box 1285 Jal, NM 88252

Dear Mr. & Mrs. Osborn:

In response to your letter dated January 24, 2001, I am writing to let you know that the Oil Conservation Division (OCD) approved the transfer of the South Langlie Jal Unit to Chaparral Oil, L.L.C. on January 31, 2001. The change of operator could not be approved until OCD received additional bonding for inactive wells in the unit.

Please be assured Chaparral Oil, L.L.C. will be required to comply with applicable OCD rules.

Sincerely,

tenbery Wrotenbery Lorí Director

Cc: Chris Williams, District

Cc: Chris Williams, District Supervisor Bill Olson, Environmental Bureau

Olson, William

From:Bob Lang [SMTP:bobl@chaparralenergy.com]Sent:Wednesday, February 07, 2001 12:58 PMTo:Bill Olson (E-mail)Cc:Ron Frangione; Mike RossiterSubject:South Langlie Jal Unit

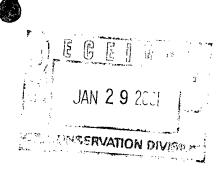
Bill Olson Hydrologist New Mexico Oil Conservation Division Santa Fe, NM

Bill,

This e-mail is in reference to our telephone conversation yesterday regarding the South Langlie Jal Unit Abatement Plan. My plan has been up to the president of the company and he has several questions he wants answered before Chaparral is going to readily commit to doing the work. Obviously, Chaparral just purchased the property and has never been in a position to pollute the surface or the subsurface. In fact, we have ordered our field personnel NOT to use the injection facilities until such time as we can determine what is operational and what is not. We are seeing if there is a way to have Bristol Resources commit to doing this work. Our corporate counsel is moving in that direction. In the mean time, we are attempting to contact all offset operators to see if any work necessary can be shared as opposed to everyone working at odds with their neighbor. Accordingly, we ask for an extension of time to piece all of this together and try to have everyone agree on a common course of action. Nothing will really be properly abated unless all those involved work in concert with one another. I hope to have an answer from all parties concerned by the end of February if at all possible. Should there be a problem with this, please let me know and I will try to get something else started to at least show a good faith effort is being made.

Bob Lang Environmental, Health & Safety Manager (405) 478-4643 Ext. 130 (O) (405) 478-2034 (F) Clay and Jeri Osborn P.O. Box 1285 Jal, New Mexico 88252 Phone (505) 395-2510

January 24, 2001



Lori Wootenbery New Mexico Oil Conservation Division 1220 South St. Francis Drive P.O. Box 6429 Santa Fe, New Mexico 87505

Re: South Langlie Jal Unit

Dear Lori Wootenbery,

We are in receipt of the letter dated October 9, 2000 form Chaparral Oil, LLC stating that "effective October 1, 2000, Chaparral has assumed operations on all properties previously operated by Bristol". (Exhibit A) This is inclusive of the above referenced South Langlie Jal Unit. (Exhibit B)

According to OCD record of previous C115 reports, Bristol Resources Corporation is the last reported operator submitting reports on the South Langlie Jal Unit on August 2000. (Exhibit C) As per OCD record there has been no activity or C115 filed by Bristol Resources Corporation or Chaparral Oil, LLC.

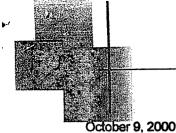
According to New Mexico Statute, Chaparral Oil, LLC must file as the operator of record after assuming operations. As of January 19, 2001 OCD records continue to reflect Bristol Resources Corporation as operator of record.

We request that the OCD investigate the South Langlie Jal Unit for current operator. We also request that once the current operator is designated that the OCD require that certain operator to comply with all New Mexico Statues. We ask that you reply within 15 days of receipt of this letter.

Sincerely

Člay Osborn

Cc: Jennifer Salisbury Bill Olson Chris Williams Echibot A



Chaparral Oil, LLC

Octobel 9, 2000

Re: Bristol Resources Acquisition

Dear Interest Owner:

As you are aware, Bristol Resources Corporation, Bristol Resources 1994 Acquisition Limited Partnership and Bristol Resources Production Company, L.L.C. ("Bristol") were forced into involuntary bankruptcy in April of this year. On September 15th, the United States Bankruptcy Court for the Southern District of Texas in Corpus Christi held an auction and sold virtually all of the assets owned by Bristol to Chaparral Oil, L.L.C. and CEI Bristol Acquisition, L.P. ("Chaparral"). This sale was approved by order of the court dated September 18 and closing took place on September 27.

We have already received a number of calls regarding the status of revenues due by Bristol to interest owners at the time of the bankruptcy filing. Be advised that part of our agreement provides that all of these past due revenue payments are to be paid in full. The order of the bankruptcy court states, "Payment of amounts to cure defaults pursuant to section 365(b) of the Bankruptcy Code will be made by the Debtors in connection with the assumption and assignment of the Assigned Contracts under the Sale Agreement. All accrued but unpaid lessors' royalties, overriding royalties and/or payables to working interest owners as of the Effective Date not the subject of suspense (excluding those subject to the Temporary Restraining Order and Preliminary Injunction entered by the Court on August 21, 2000 in Adversary Proceeding No. 00-2100) shall be paid by the Debtors as soon as practicable after closing from the purchase price tendered by Buyer. " In short, this means that in virtually all cases Bristol will be paying all past due revenues in the very near future.

Pursuant to the terms of the sale order, the effective date of the sale is July 1, 2000. Chaparral has assumed all existing joint operating agreements and pursuant to the terms of the bid procedures and the sale order approved by the court, effective October 1, 2000 Chaparral has assumed operations on all properties previously operated by Bristol.

Chaparral is a stable, independent oil and gas producer that currently operates approximately 1,000 wells in the mid-continent and west Texas areas of the United States. We have a full staff of qualified professionals to handle all issues relating to the development and operation of the properties acquired from Bristol. It is our goal to review each and every property in detail and determine the best approach to fully exploit its fullest potential. While it will take some time to complete such a review, be assured that the process is already underway.

We are well aware of the many problems and frustrations encountered by each of you in the recent past regarding your interest in properties operated by Bristol. It is our desire to prove ourselves as the competent operator that we are and provide the service you each deserve with respect to your interest. We look forward to a long and profitable relationship with you in this regard.

Sincerely,

CHAPARRAL RESOURCES. L.L.C. CEI BRISTOL ACQUISITION, L.P.

Michael A. Rossite

Land Manager Acquisitions, Divestitures and Partnerships

701 Cedar Lake Blvd. Oklahoma City, Oklahoma 73114 Phone: 405.478.8770 Fax - Land & Accounting: 405.478.1890 Fax - Geology & Gas Marketing: 405.478.1947

CHAPARRAL "USA" ENERGY, INC. OPI (405) 478-8770 (580) 772-1931 LEA CO., NM WELL NO. 29 SW/4 SW/4 SEC. 18-25S-37E SOUTH LANGLIE JAL UNIT (915) 445-6081

Exhibit B



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON Governor Jennifer A. Salisbury Cabinet Secretary Lori Wrotenbery Director Oil Conservation Division

October 31, 2000

CERTIFIED MAIL RETURN RECEIPT NO: 5051-3754

Mr. Michael A. Rossiter Chaparral Oil, LLC 701 Cedar Lake Blvd. Oklahoma City, Oklahoma 73114

RE: SOUTH LANGLEY JAL UNIT ABATEMENT PLAN (AP-18)

Dear Mr. Rossiter:

The New Mexico Oil Conservation Division (OCD) understands that Chaparral Oil, LLC. (Chaparral) is the current operator of the former Bristol Resources Corporation's (BRC) South Langley Jal Unit located in Sections 7, 8, 17 and 18 of Township 25 South, Range 37 East, Lea County, New Mexico. On August 2, 2000, the OCD required that BRC submit an abatement plan pursuant to 19 NMAC 15.A.19.C.1 for the South Langley Jal Unit to investigate and abate ground water pollution. Enclosed is a copy of the OCD's August 2, 2000 correspondence with BRC.

As the current operator, the OCD requires that Chaparral submit an abatement plan for the South Langley Jal Unit to investigate and abate ground water pollution pursuant to 19 NMAC 15.A.19.C.1. To initiate the abatement plan process, the OCD requires that Chaparral submit to the OCD by December 31, 2000 a Stage 1 Investigation Proposal pursuant to OCD Rule 19.E.1. and 19.E.3. The Stage 1 Investigation Proposal shall be submitted to the OCD Santa Fe Office with a copy provided to the OCD Hobbs District Office.

If you have any questions, please contact Bill Olson of my staff at (505) 827-7154.

Sincerely,

Roger C. Anderson Environmental Bureau Chief

RCA/wco

xc: Chris Williams, OCD Hobbs District Office Clay Osborn

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Received by (<i>Please Print Clearly</i>) B. Date of Delivery C. Signature X MANA Agent D. Is delivery address different from item 1? Yes	
1. Article Addressed to: Mr. Michael A. Rossiter Chaperral Oil, LLC	If YES, enter delivery address below:	
701 Cedar Lake Blvd. Oklahome City, OK 73114	3. Service Type Certified Mail Express Mail Registered Return Receipt for Merchandise Insured Mail C.O.D.	
	4. Restricted Delivery? (Extra Fee)	
2. Article Number (Copy from service label) 5051	-3754	
PS Form 3811, July 1999	urn Receipt 102595-99-M-1789	



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON Governor Jennifer A. Salisbury Cabinet Secretary Lori Wrotenbery Director Oil Conservation Division

August 2, 2000

CERTIFIED MAIL RETURN RECEIPT NO: 5051-3389

Mr. Gary Green Bristol Resources Corporation 6655 South Lewis, Suite 200 Tulsa, Oklahoma 74136

RE: SOUTH LANGLEY JAL UNIT ABATEMENT PLAN (AP-18)

Dear Mr. Green:

The New Mexico Oil Conservation Division (OCD) has reviewed Bristol Resources Corporation's (BRC) July 26, 2000 correspondence which is in response to the OCD's June 15, 2000 request for information on BRC's South Langley Jal Unit located in Sections 7, 8, 17 and 18 of Township 25 South, Range 37 East, Lea County, New Mexico.

A review of the above-referenced correspondence and the documents listed below shows that there are a number of leak and spill sites with contaminated soils related to BRC's Langley Jal Unit operations and that ground water is contaminated in excess of New Mexico Water Quality Control Commission (WQCC) standards directly downgradient of one of the spill sites.

- "PHASE II ENVIRONMENTAL ASSESSMENT, JANUARY 2000 SOIL SAMPLING, ABANDONED TANK BATTERIES; SITE 1, SEC 18, T25S, R37E; SITE 2, SEC 18, T25S, R37E; SITE 3, SEC 18, T25S, R37E; SOUTH LANGLEY JAL UNIT, LEA COUNTY, NEW MEXICO" which was submitted by Cornerstone Environmental Resources, Inc. on behalf of BRC.
- November 19, 1999 "SOUTH LANGLEY JAL UNIT, LEA CO. NEW MEXICO" which was submitted by Cornerstone Environmental Resources, Inc. on behalf of BRC.
- "PHASE II ENVIRONMENTAL ASSESSMENT, JULY, 1999 GROUNDWATER SAMPLING, SOUTH LANGLEY JAL UNIT, LEA COUNTY, NEW MEXICO"" which was submitted by Cornerstone Environmental Resources, Inc. on behalf of BRC.

"PHASE II ENVIRONMENTAL ASSESSMENT, JUNE, 1999 SOIL BORINGS, SOUTH LANGLEY JAL UNIT, LEA COUNTY, NEW MEXICO"" which was submitted by Cornerstone Environmental Resources, Inc. on behalf of BRC.

undated "PHASE II ENVIRONMENTAL ASSESSMENT, SOUTH LANGLEY JAL UNIT, LEA COUNTY, NEW MEXICO" " which was submitted by Cornerstone Environmental Resources, Inc. on behalf of BRC.

March 20, 2000 "HYDROGEOLOGY AND GROUNDWATER IN THE VICINITY OF THE OSBORN RANCH, JAL, NEW MEXICO SECTIONS 12 AND 13, T25S, R36E, SECTIONS 7 AND 18, T25S, R37E" which was submitted by Safety & Environmental Solutions on behalf of Mr. Clay Osborn the surface land owner

March 20, 2000 "ENVIRONMENTAL SITE ASSESSMENT OSBORN RANCH, SECTIONS 7 AND 18 OF TOWNSHIP 25 SOUTH RANGE 37 EAST, SECTIONS 12 AND 13 OF TOWNSHIP 25 SOUTH RANGE 35 EAST, LEA COUNTY, NEW MEXICO" which was submitted by Safety & Environmental Solutions on behalf of Mr. Clay Osborn the surface land owner.

- June 3, 2000 "SOUTH LANGLEY JAL UNIT PICTURES" which was submitted by Mr. Clay Osborne.

Pursuant to 19 NMAC 15.A.19.C.1, the OCD requires that BRC submit an abatement plan for the South Langley Jal Unit to investigate and abate ground water pollution. To initiate the abatement plan process, the OCD requires that BRC submit to the OCD by October 2, 2000 a Stage 1 Investigation Proposal pursuant to OCD Rule 19.E.1. and 19.E.3. The Stage 1 Investigation Proposal shall be submitted to the OCD Santa Fe Office with a copy provided to the OCD Hobbs District Office. The Stage 1 Abatement Plan Proposal shall include proof of written notice pursuant to OCD Rule 19.G.(1). A listing of "those persons, as identified by the Director, who have requested notification" pursuant to OCD Rule 19.G.(1)(d) will be provided after BRC submits a written notification proposal.

If you have any questions, please contact Bill Olson of my staff at (505) 827-7154.

Sincerely,

Roger C. Anderson Environmental Bureau Chief

RCA/wco

xc: Chris Williams, OCD Hobbs District Office Clay Osborn Clay Osborn



p.1

FAX COVER SHEET

ROCKY TOP RANCH

t

CLAY AND JERI OSBORN One North Country Club Road P.O. Box 1285 Jal, NM 88252 Phone number 505-395-2510 Fax number 305-395-2676

SEND TO	
company name	From CIAY OS GORN
Attention Bill Olson	10/30/00
Office location SAW FOR TR. NM	Office location $\exists M, M, M,$ Phone number
Fax number JB5-827-8177	Phone number 3.95-2510
Urgent Reply ASAP Plea	se comment Please review For your information
Total pages, including cover2	
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Clay Osborn



Chaparral Oil, LLC

October 9, 2000

Re: Bristol Resources Acquisition

Dear Interest Owner:

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Sincerely,

CHAPARRAL RESOURCES, L.L.C. CEI BRISTOL ACQUISITION, L.P.

Michael A. Rossiter

Michael A. Rossiter Land Manager Acquisitions, Divestitures and Partnerships

701 Cedar Lake Blvd. Oklahoma City, Oklahoma 73114 Phone: 405.478.8770 Fax - Land & Accounting: 405.478.1890 Fax - Geology & Gas Marketing: 405.478.1947

NMPRC Corporation Information Inquiry

• Follow this link to start a new search.

CHAPARRAL OIL, L.L.C.

(OKLAHOMA Corporation)

SCC Number:	2118057
Tax & Revenue Number:	
Organization Date:	OCTOBER05, 2000, in NEW MEXICO
Organization Type:	FOREIGN LIMITED LIABILITY
Organization Status:	EXEMPT
Good Standing:	
Purpose:	NOT REQUIRED

ORGANIZATION DATES

Taxable Year End Date:Filing Date://Expiration Date:

SUPPLEMENTAL POST MARK DATES

Supplemental: Name Change: Purpose Change:

MAILING ADDRESS

701 CEDAR LAKE BLVD OKLAHOMA CITY, OKLAHOMA 73114

PRINCIPAL ADDRESS

PRINCIPAL ADDRESS (Outside New Mexico)

701 CEDAR LAKE BLVD OKLAHOMA CITY OKLAHOMA 73114

REGISTERED AGENT

CT CORPORATION SYSTEM

123 EAST MARCY STREET SANTA FE NEW MEXICO 87501

Designation date: 10/05/00 Agent Post Mark Date: Resignation date:

COOP LICENSE INFORMATION

Number: Type: Expiration Year:

ORGANIZERS

FISCHER, MARK A. FISCHER JR., CHARLES A.

DIRECTORS

Date Election of Directors:

1. 3

NMPRC Corporation Information Inquiry

• Follow this link to start a new search.

CHAPARRAL ENERGY, INC.

In New Mexico Doing Business As:

CHAPARRAL (USA) ENERGY, INC.

(OKLAHOMA Corporation)

SCC Number:	1439793
Tax & Revenue Number:	0920000000
Qualification Date:	JULY 13, 1989, in NEW MEXICO
Corporation Type:	FOREIGN PROFIT
Corporation Status:	ACTIVE
Good Standing:	In GOOD STANDING through 3/15/2002
Purpose:	OIL & GAS EXPLORATION & PRODUCTION

CORPORATION DATES

Taxable Year End Date:12/31/99Filing Date:04/05/00Expiration Date:

SUPPLEMENTAL POST MARK DATES

Supplemental:
Name Change:
Purpose Change:

MAILING ADDRESS

701 CEDAR LAKE BLVD OKLAHOMA CITY, OKLAHOMA 73114

PRINCIPAL ADDRESS

NONE

PRINCIPAL ADDRESS (Outside New Mexico)

701 CEDAR LAKE BLVD OKLAHOMA CITY OKLAHOMA 73114

REGISTERED AGENT

MARK VETETO - ME-TEX SUPPLY COMPANY

401 W. TAYLOR HOBBS NEW MEXICO 88240

Designation date: 04/05/00 Agent Post Mark Date: Resignation date:

COOP LICENSE INFORMATION

Number: Type: Expiration Year:

OFFICERS

PresidentFISCHER, MARK A.Vice PresidentFISCHER, CHARLES A.SecretaryNONE LISTEDTreasurerNONE LISTED

DIRECTORS

Date Election of Directors: 03/01/01

FISCHER, *CHARLES A* 701 CEDAR LAKE BLVD. OKLAHOMA CITY, OK 73114 *FISCHER*, *MARK A* 701 CEDAR LAKE BLVD. OKLAHOMA CITY, OK 73114



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON Governor Jennifer A. Salisbury Cabinet Secretary Lori Wrotenbery Director Oil Conservation Division

August 2, 2000

<u>CERTIFIED MAIL</u> RETURN RECEIPT NO: 5051-3389

Mr. Gary Green Bristol Resources Corporation 6655 South Lewis, Suite 200 Tulsa, Oklahoma 74136

RE: SOUTH LANGLEY JAL UNIT ABATEMENT PLAN (AP-18)

Dear Mr. Green:

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A review of the above-referenced correspondence and the documents listed below shows that there are a number of leak and spill sites with contaminated soils related to BRC's Langley Jal Unit operations and that ground water is contaminated in excess of New Mexico Water Quality Control Commission (WQCC) standards directly downgradient of one of the spill sites.

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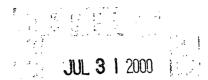
If you have any questions, please contact Bill Olson of my staff at (505) 827-7154.

Sincerely.

Roger C. Anderson Environmental Bureau Chief

RCA/wco

xc: Chris Williams, OCD Hobbs District Office Clay Osborn



BRISTOL RESOURCES

Corporation | July 26, 2000

6655 South Lewis Suite 200 Tulsa, Oklahoma 74136 (918) 492-7900 FAX (918) 492-7944 Mr. William C. Olson New Mexico Oil Conservation Division 2040 S. Pacheco Street Santa Fe, NM 87505

Dear Mr. Olson:

Your letter of June 15, 2000 makes several requests of Bristol Resources. Please find enclosed a map that, to the best of my knowledge, answers your request #1.

To answer your #2 request, I would rely on Cornerstone's work for the most detail concerning spill history. I have included a copy of a February 2, 1999 assessment performed by Cornerstone. You may not have this report.

Here are some of my concerns and observations as they pertain to Mr. Osborne's ground water contamination:

- 1. The background level of fluids in the area may be in excess of 250ppm.
- 2. Ground water upgradient from Bristol may be in excess of 250ppm.
- 3. A well operated by Grury Petroleum Management is inside the Jal Unit and is very close to Mr. Osborne's house. This well is not operated by Bristol and therefore Bristol has no control or knowledge as to Grury's operations.
- 4. The old Winters E battery site is quite possibly Grury's responsibility and not Bristol's. However, Bristol has performed some cleanup at this site.
- 5. The city of Jal waters the golf course just adjoining the unit year round. The amount of water they use and introduce into the environment below the surface is considerable. A few small leaks on Bristol's part are small, by volume, in comparison to the water put down by the golf course.

These are a few of my concerns and observations. Bristol is sensitive to environmental issues and wants to cooperate with the OCD and any other agency concerning the environment. Our efforts on all our leases to maintain the highest level of operations and awareness to the environment are key to the way we do business.

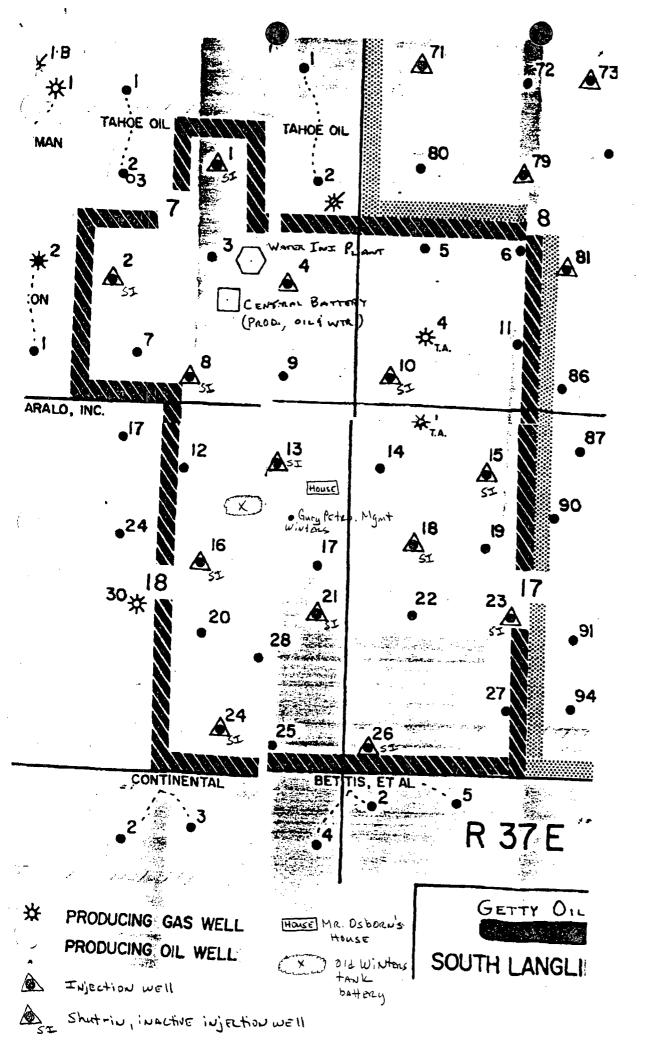
BRISTOL RESOURCES

Corporation

Bristol will continue to work with the OCD as it pertains to the Jal Unit.

Sincerely, 6655 South Lewis Suite 200 Gary Gree Tulsa, Oklahoma 74136 (918) 492-7900 FAX (918) 492-7944

GG/lew Enclosures



Cornerstone Environmental Resources, Inc.

February 2, 1999

Bristol Resources Corporation Mr. Dan Abney 6655 South Lewis Tulsa, Oklahoma 74136

ζ.

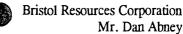
Re: Phase II Environmental Assessment (EA) South Langley Jal Unit Lea County, New Mexico

Cornerstone Environmental Resources, Inc. (CERI) conducted an EA of the subject property located in Lea County, New Mexico on January 18, 1999 at the request of and on behalf of Bristol Resources Corporation (Bristol). The location of the property is shown on the attached Location Map, Figure 1, and Topographic Map, Figure 2. CERI conducted this EA to evaluate the extent of a brine water spill from a leak in an injection line on the subject property. This EA involved a site visit to the field to obtain soil samples to assist in evaluating the vertical and horizontal extent of the salt water leak. Mr. John H. Alderman of CERI met with Bristol's representative Mr. Don Taylor and together they conducted the evaluation of the site.

According to Mr. Taylor, the leak was discovered in January by the land owner. The leak occurred in the injection line going to injection well #13. The location of the leak was just south of well #9 as shown on the attached Figure 2. The land owner was reported to have said that he saw a small stream of water flowing south from the leak area. Mr. Taylor said that the New Mexico Oil Conservation Division (OCD) was notified and that Mr. Gary Wink had conducted an investigation of the incident. The leak was repaired and CERI was contacted to conduct an evaluation of the extent of the spill.

Mr. Bowen was the person who repaired the leak. He said that the leak was in the top of the injection line and that the force of the water from the pipe was upward. After reaching the surface, Mr. Bowen said the water appeared to flow south and form pools in three locations. A backhoe was used to dig seven trenches to obtain soil samples from background areas and from the pooled locations along the reported spill route.

Photo 1 shows the northern most extent of the reported surface movement of the brine. The terrain of the area and the reported route of the water movement can be seen in Photos 2 and 3. Photo 2 was taken looking north from trench 3 toward Well #9 and the leak location. Water movement was reported to have been down the road as seen in Photo 2 and 3. The area identified as Puddle area 3 appears the largest area of water accumulation. Four trenches were dug in Area 3. Area 3 is shown in Photos 3 through 5.



Mr. Dan Abney

Trench 1 was placed approximately 30 feet south east of the pipeline leak. The chloride (Cl) levels in the two samples from Trench 1 were 2 and 8 milligrams/kilogram (mg/kg).

Trench 2 was placed along the flow path in the area identified as Puddle Area 1. The Cl levels from this trench were low and ranged from 3 to 25 mg/kg. The 25 mg/kg sample was taken at a depth of 23 inches and was the interface between the sand and the caliche zones. The soil sample from the bottom of the trench had a Cl level of 8 mg/kg.

Trench 3 was also placed along the flow path in the area identified as Puddle Area 2. The Cl levels increased in this trench with depth. The level at 6 inches was 50 mg/kg. The Cl level increased to 431 mg/kg at 27 inches and 2,270 mg/kg at 46 inches.

Trenches 4 through 7 were all placed in the area identified as Puddle Area 3. This area represented the southern most extent of the surface flow. The Cl levels from all the subsurface samples were in the 3,000 to 4,000 mg/kg range as shown in Table 1. The analysis of the surface sample indicated a Cl level of 14,400 mg/kg.

Our interpretation based on these results is that the majority of the water went up from the surface and then moved down the road toward Puddle Area 3. Very little of the water went down until it reached Area 3. The water did accumulate and some has moved downward. The Cl levels of the subsurface in this area is from 3,00 to 4,00 mg./kg. The main source of the Cl contamination is in the top 2 to 3 inches of soil where a Cl level of 14,400 mg/kg was measured. One complication to analyzing the impact of this spill is the past spill which have occurred in this area. Both Mr. Bowen and Mr. Tyler said that there have been historical line leaks. These historical leaks would have impacted the area. Their effect on our analysis can not be evaluated with out knowing the location and amount of the spills.

We will be talking with the New Mexico OCD personnel to determine the appropriate actions concerning this spill.

4

Should you have any questions or require further information, please do not hesitate to give me a call at (972) 243-7643. Thank you for this opportunity to provide Bristol with professional environmental consulting services.

Sincerely, CORNERSTONE ENVIRONMENTAL RESOURCES, INC.

John H. Alderman, P.E. President

Attachments



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Table 1

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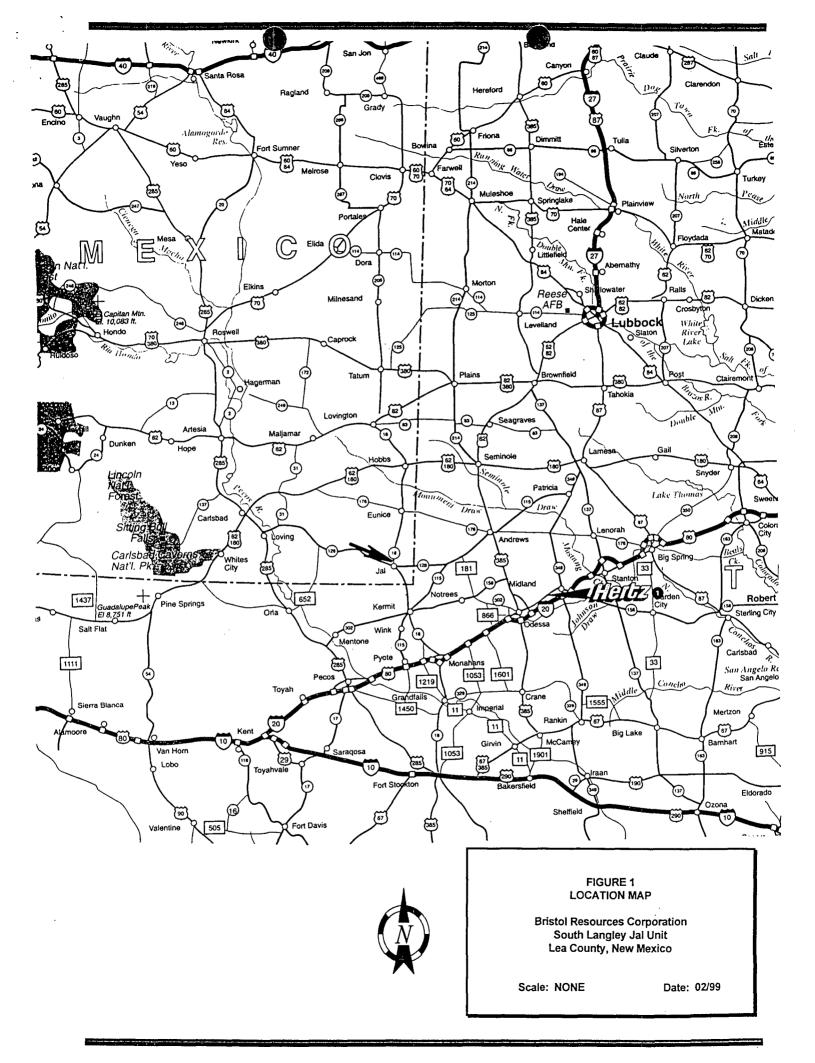
Analysis of Soil Samples Taken 1/18/1999

Langley Jal Unit

Lea County, New Mexico

	Sample Number	Depth	Chlorides, mg/kg
Transla 1			
Trench 1	Sample 011800004	6 inches	3
	Sample 011899004	24 inches	2 8
	Sample 011899005	24 menes	8
Trench 2			
	Sample 011899006	4 inches	3
	Sample 011899007	23 inches	25
	Sample 011899008	40 inches	8
Trench 3			
	Sample 011899009	6 inches	50
	Sample 011899010	27 inches	431
	Sample 011899011	46 inches	2270
Trench 4			
	Sample 011899012	4 inches	3090
	Sample 011899013	24 inches	4420
	Sample 011899014	45 inches	3430
Trench 5			
Trenen 9	Sample 011899015	8 inches	3530
	Sample 011899016	32 inches	3800
	Sample 011899017	47 inches	3710
Treast C			
Trench 6	Tronch not compled		
	Trench not sampled		
Trench 7			
	Sample 011899001	2 inches	3340
	Sample 011899002	20 inches	4740
	Sample 011899003	40 inches	3570

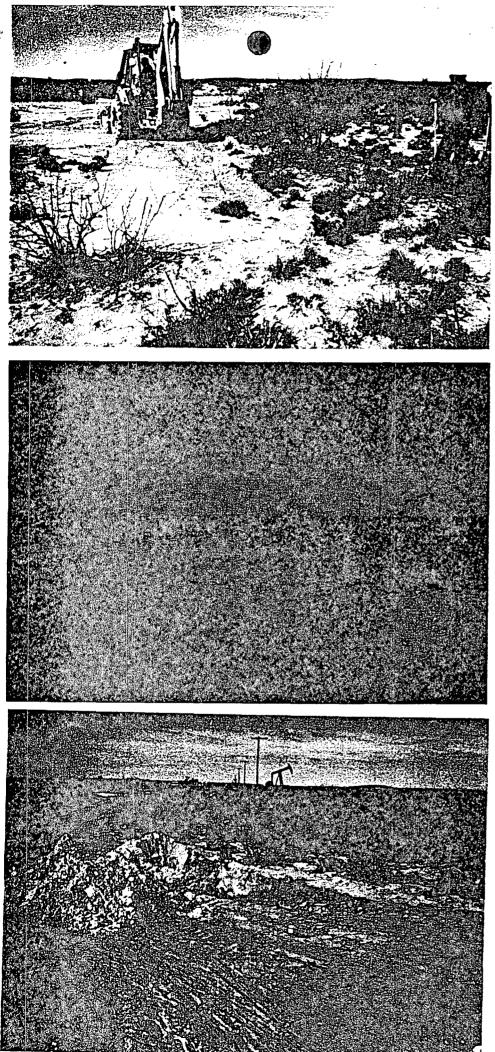
Note: Depths of Trench 7 were not measured and the depths shown above are the approximate locations of the soil samples.





ROAD CLASSIFICATION Heavy-duty Light duty	
Medium-duty Unimproved dirt	N

1	FIGURE 2
	TOPOGRAPHIC MAP
	Bristol Resources Corporation
	South Langley Jal Unit
	Lea County, New Mexico
	Jal NW Quadrangle
	Date: 02/99

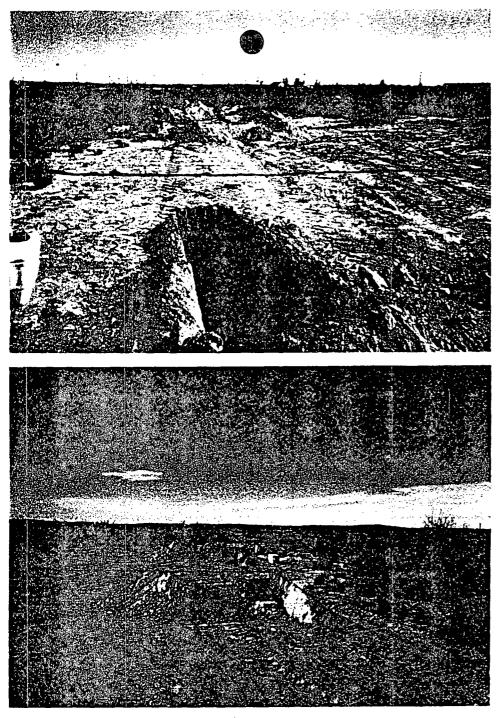


TO 1: Termination of surface movement of brine from the leak in the injection line and site of trench 7.

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PHOTO 2: Photo taken looking north from trench 3 toward Well #9 and the site of the surface leak.

PHOTO 3: Site of trench 4 and north end of puddle area three.



OTO 4: Puddle area 3 looking south from trench 5.

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PHOTO 5: Puddle area 3 looking north with trench 6 in foreground.





ONE NORTH COUNTRY CLUB RD. & P.O. BOX 1285 & JAL, NM 88252 Phone 505-395-2510 Fax 505-395-2676

CLAV & JERI OSRORS

June 3, 2000

RECEIVED

RE: South Langlie Jal Unit Pictures

Bill Olson **Oil Conservation Divison** 2040 South Pacheco Santa Fe, NM 87505

JUN 0 6 2000

ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

Dear Bill,

Thank you and all the others for taking time to come to Jal and our ranch to look at our water problem. Jeri and I enjoyed meeting all of you and having you in our home, you are welcome here any time.

I made you a copy of the Bristol Resources Corp. pictures you wanted. If you need a copy of any of the other pictures you looked at please let me know.

Yours truly

Clay Osborn



7-3-99

Bristol Resources Pump Station West TANK Pumper again opened drain Value and ran approx. 50-60 bbls Salt water On ground. This was another deliberate act.







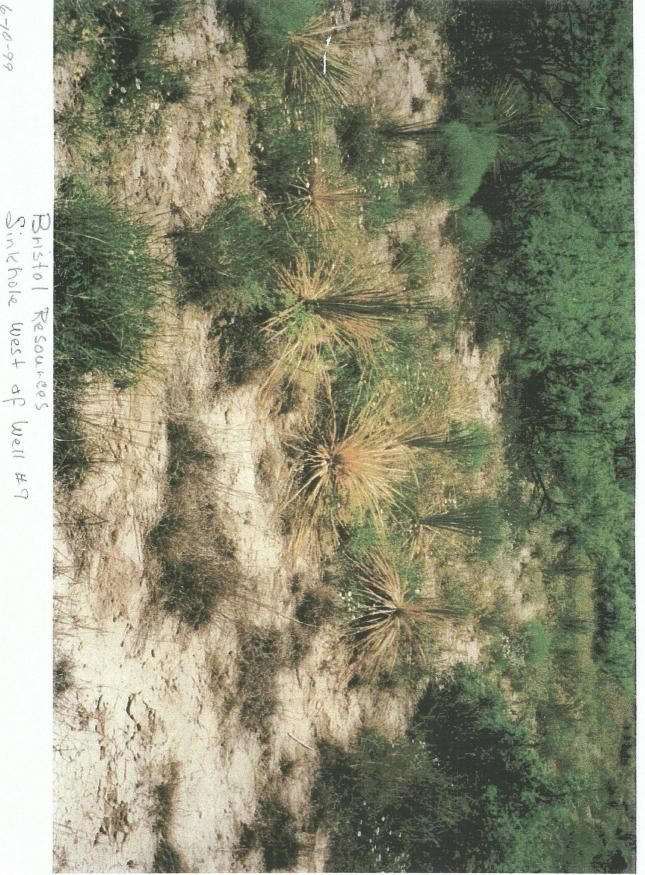








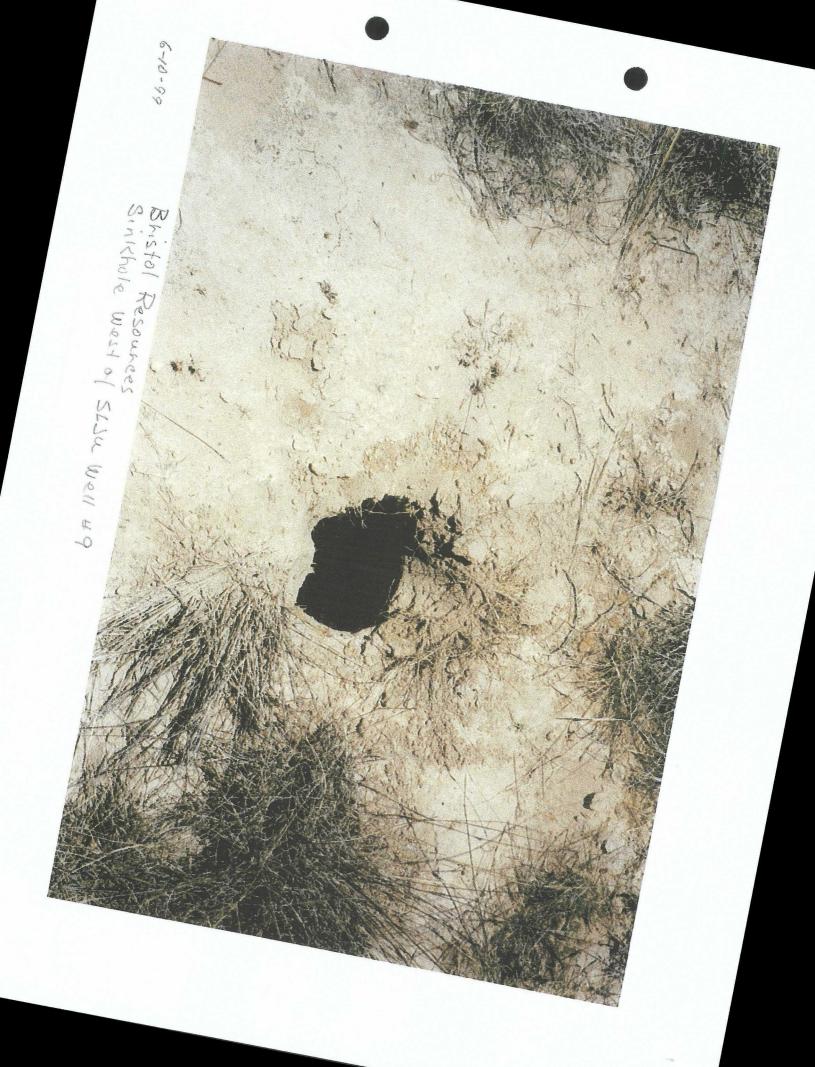
6-10-99

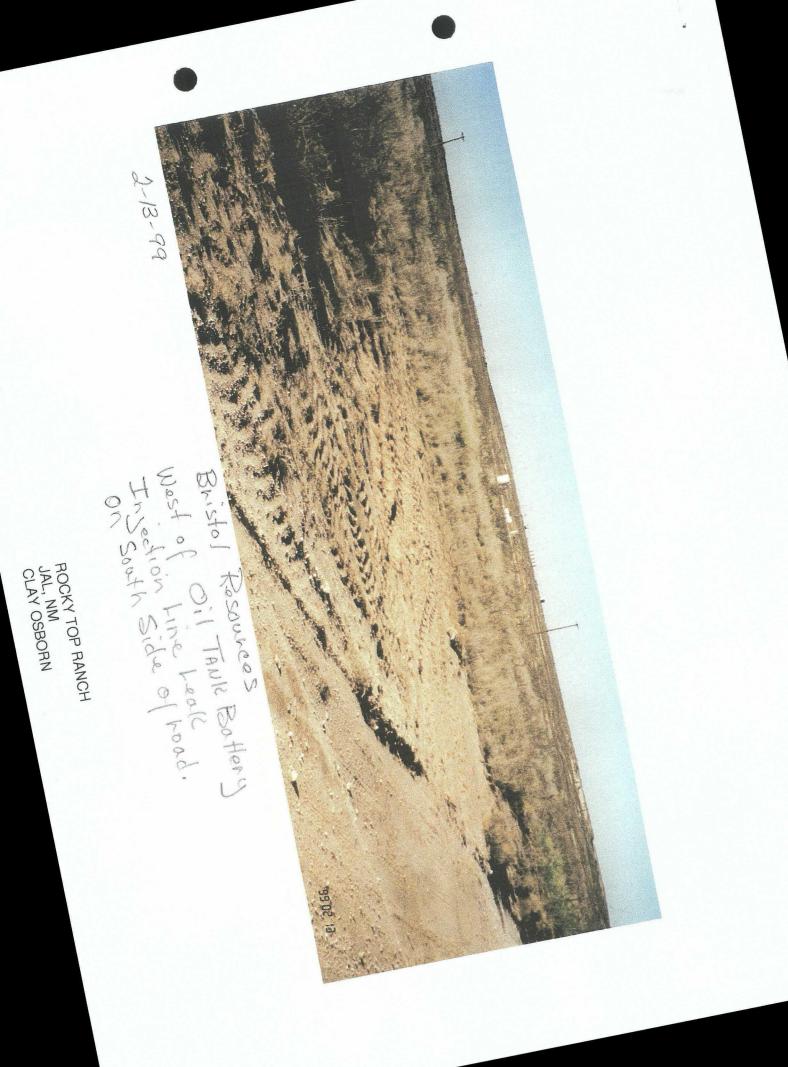


6-10-99

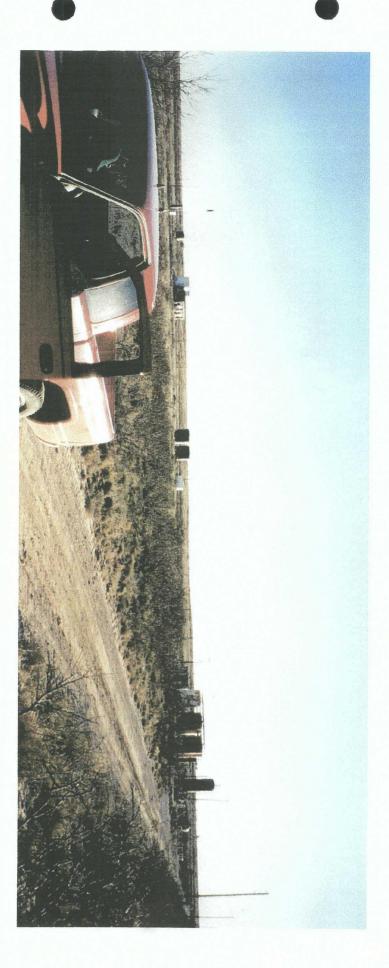


-14









Bhistol Resources Injection hine heald South of Road South of Rung Station 2-13.99

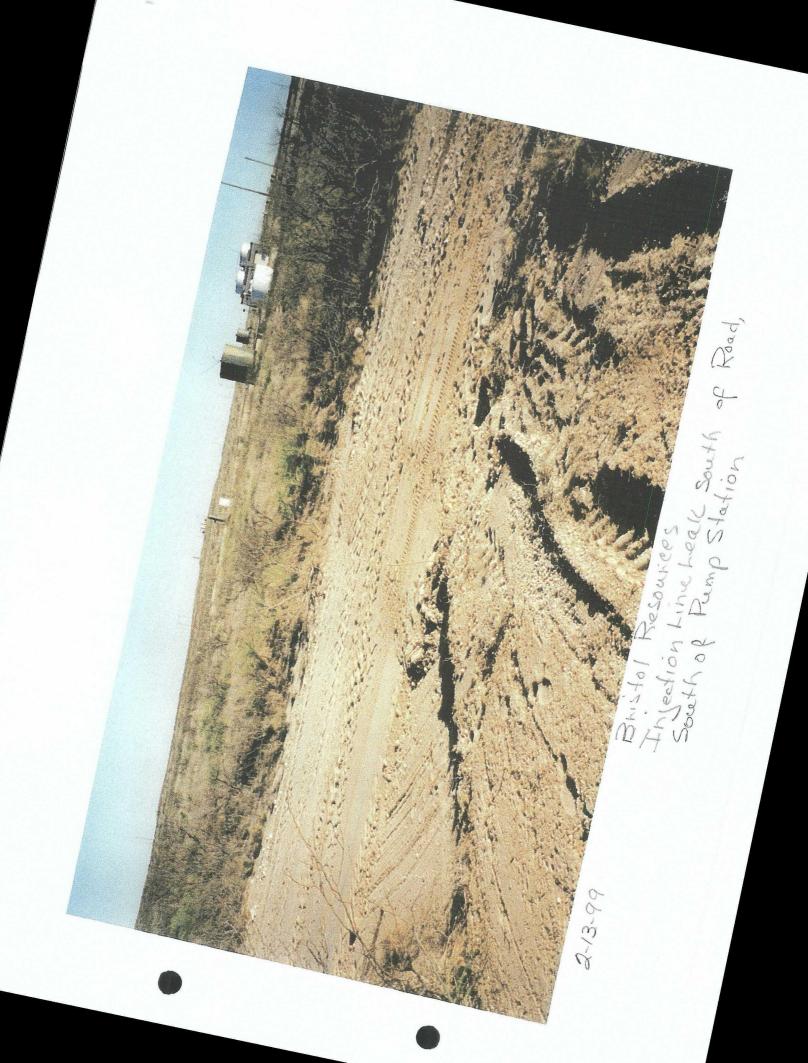
ROCKY TOP RANCH JAL, NM CLAY OSBORN

33.82 Bhistol Resources. Injection Line Leals South of Road South of Rump Station 2-13-99



Bristol Resources Injection Line Lead South of Rad South of Rung Station

2-13-99

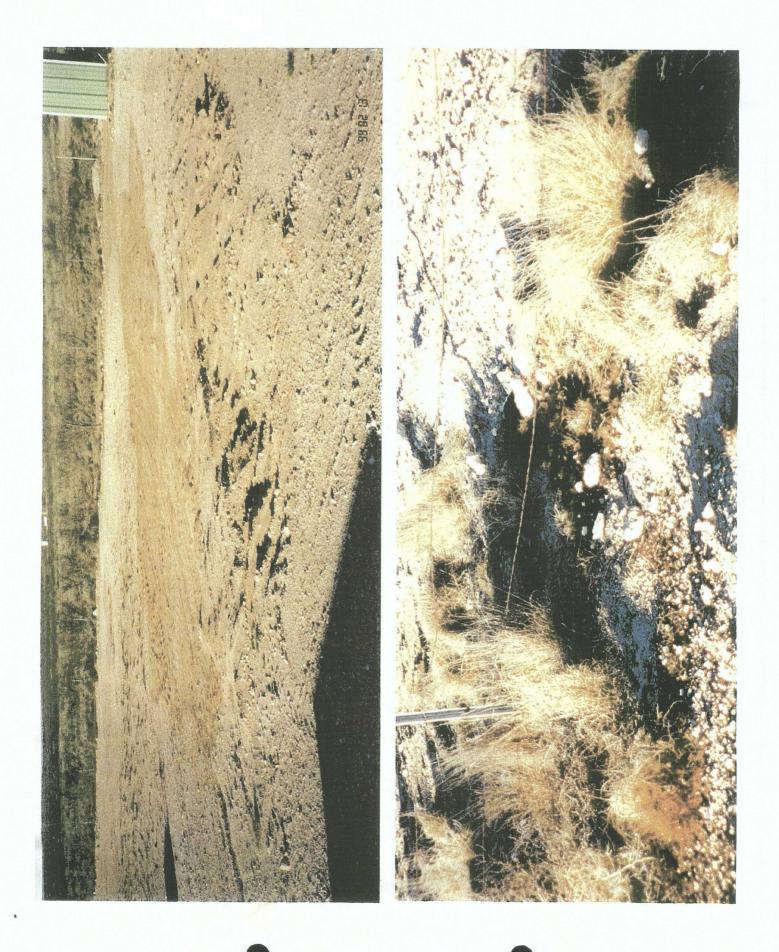


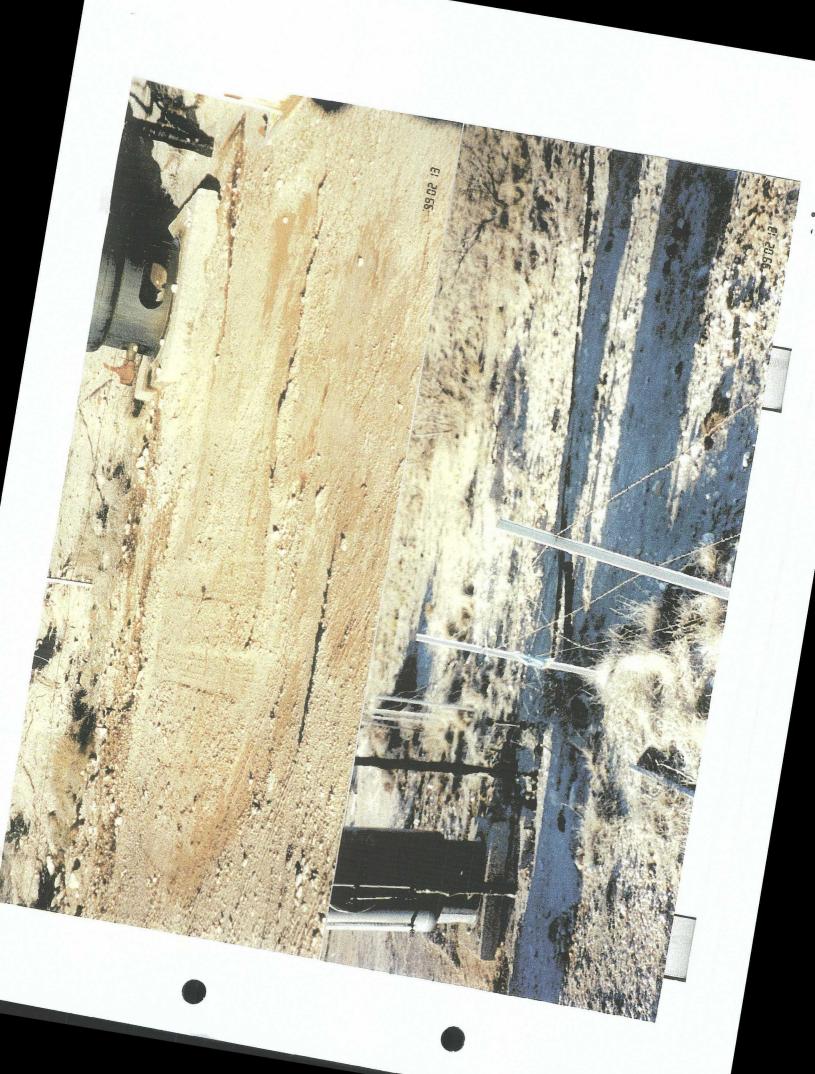
Bristol Resources Injection Line Leak. West of Rung Station ROCKY TOP RANCH JAL, NM CLAY OSBORN 2-13-99

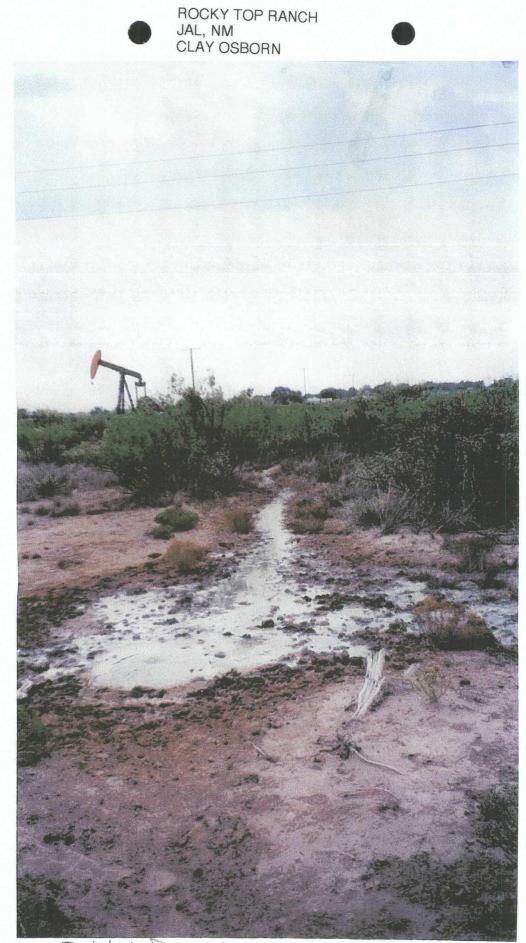


Bristol Resources Initine Leals at Pump Station Oil Bleed out of Seperator ROCKY TOP RANCH JAL, NM CLAY OSBORN

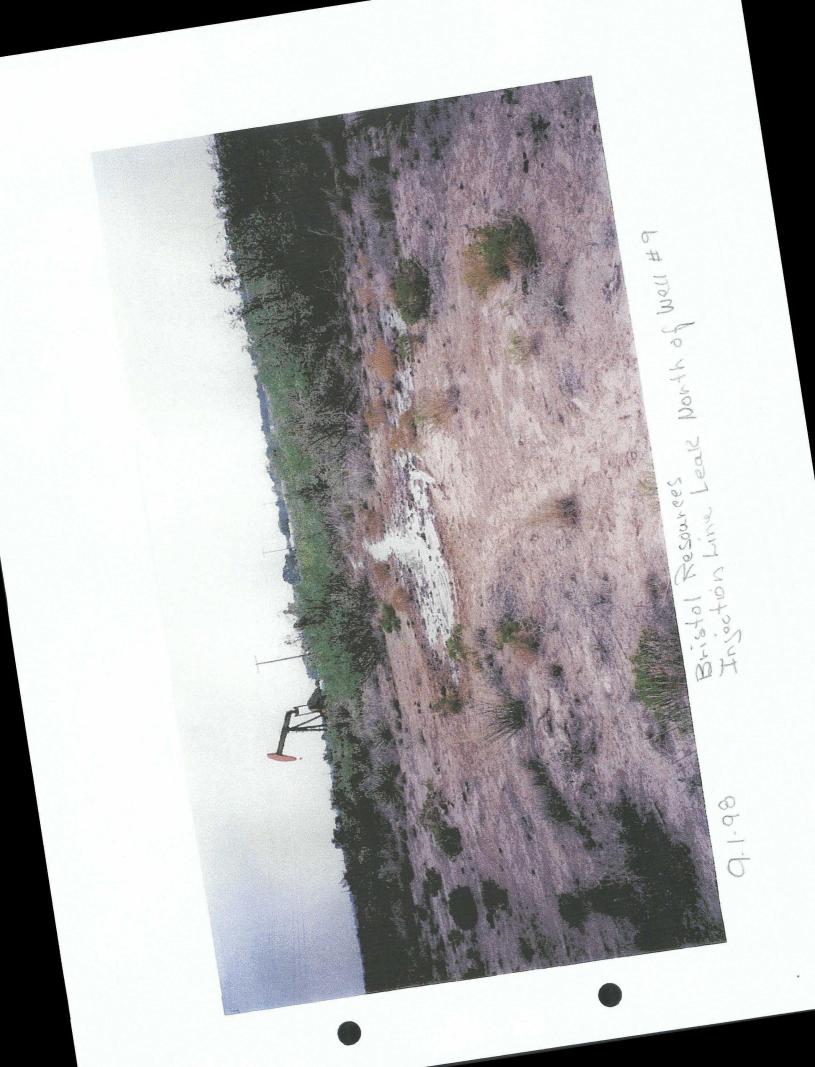
2-13-99







9-1-98 Bristol Resources Injection Line Leak North of Well #9





Bristol Resources Injection Line Leak North of Well # 9

9-1-98

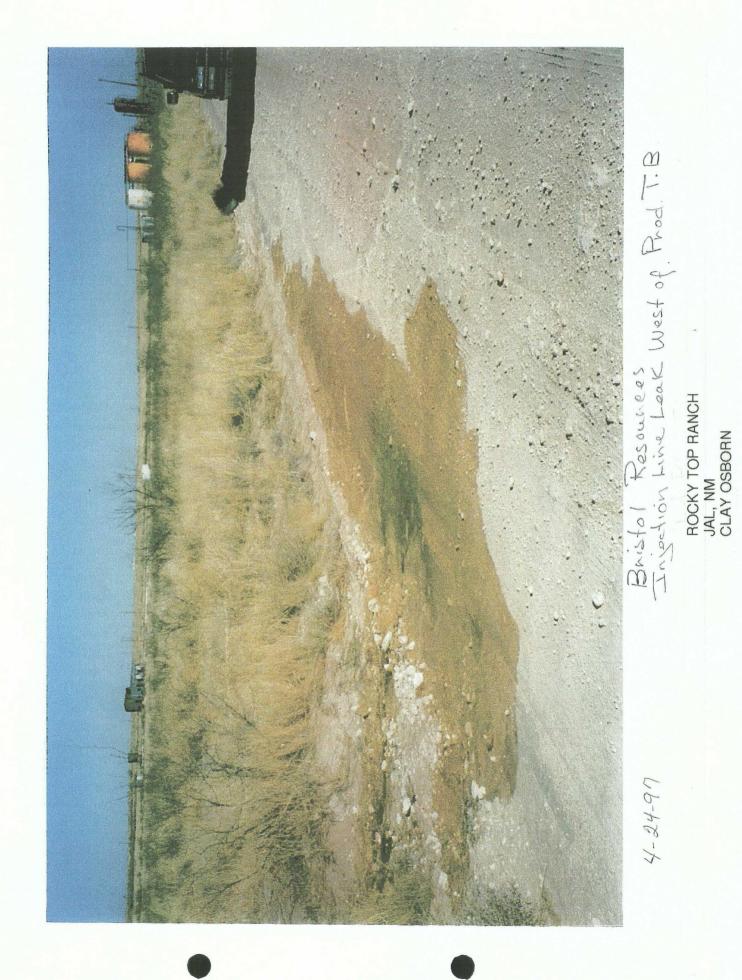


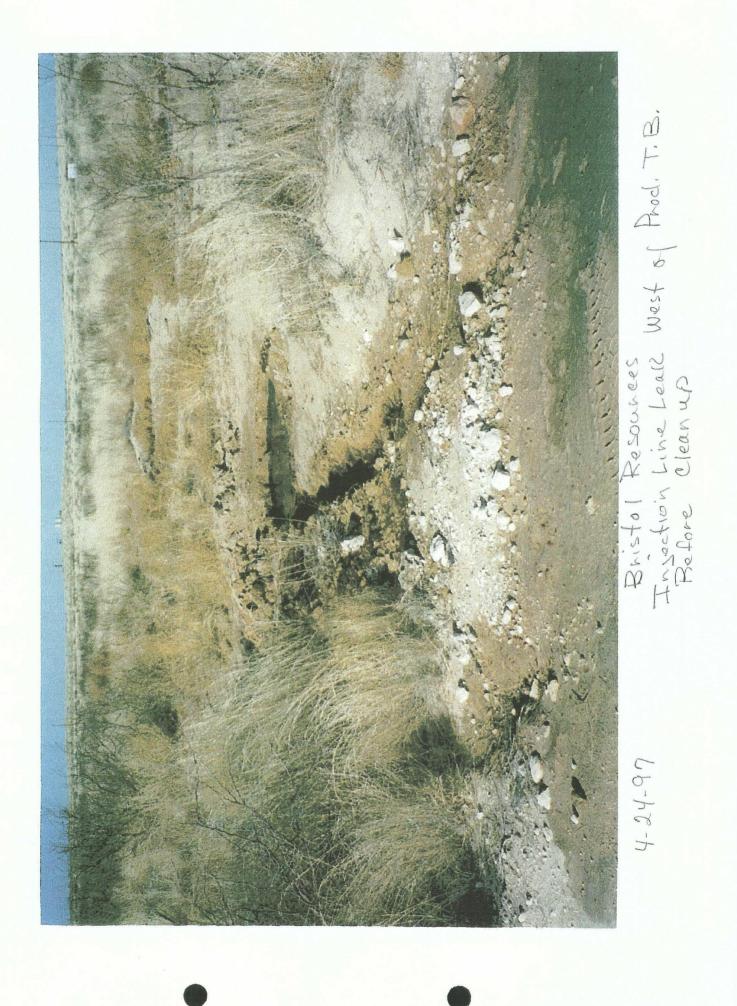
Bristol Resources Injection Line Leak North of Well #9

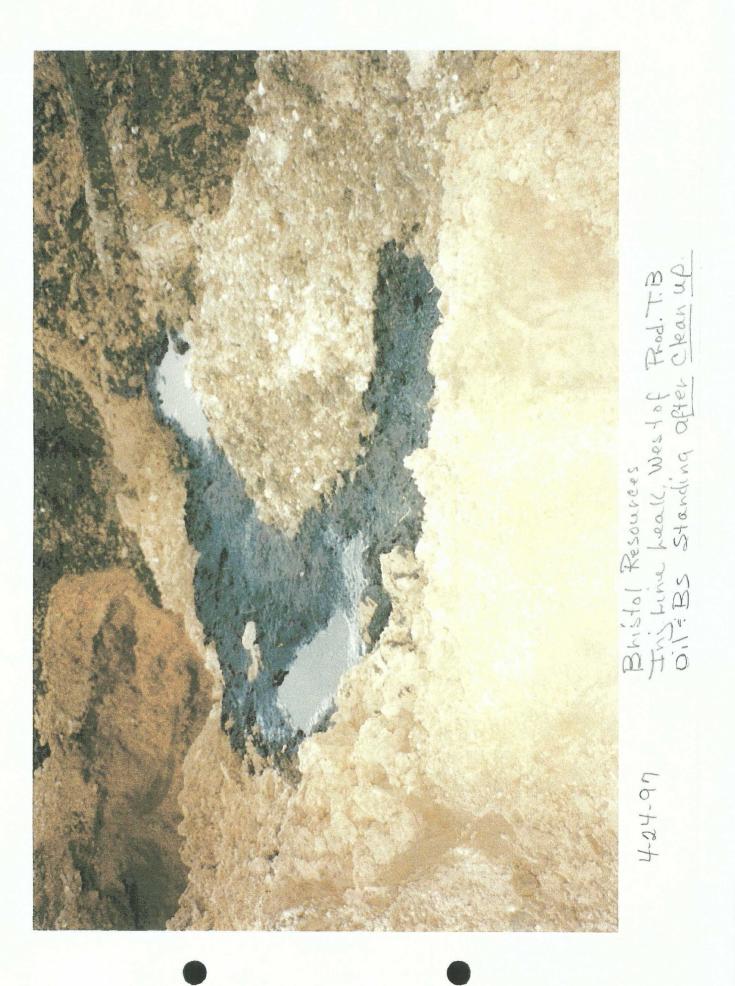


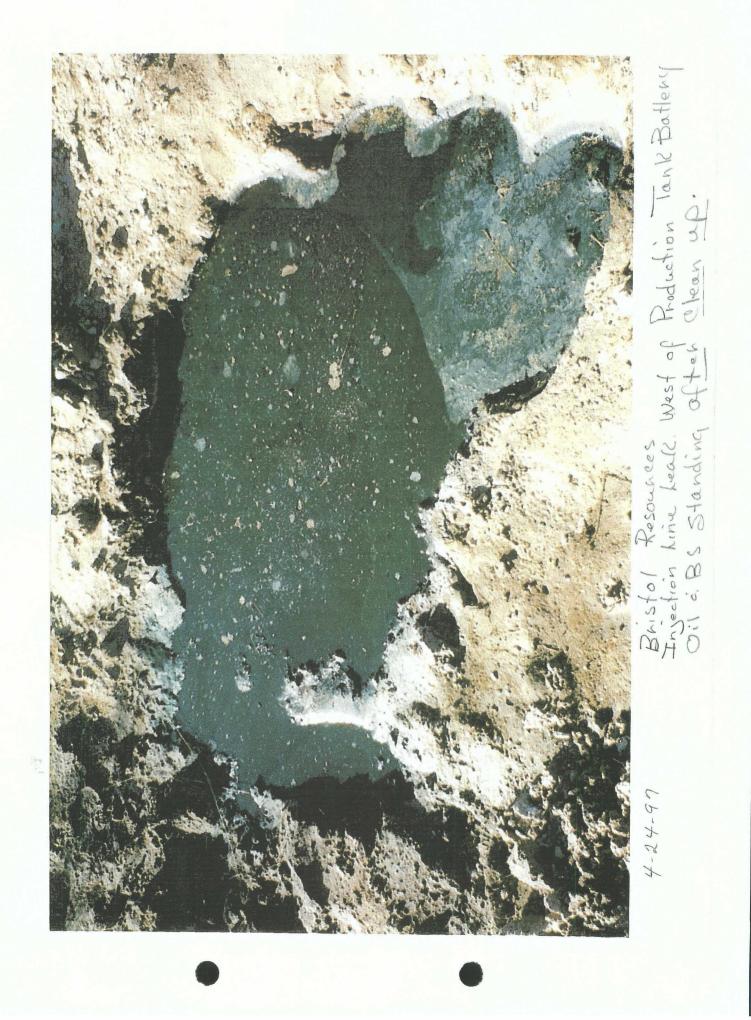
Bristol Resources Injection Line Leak North of Well #9

9-1-68









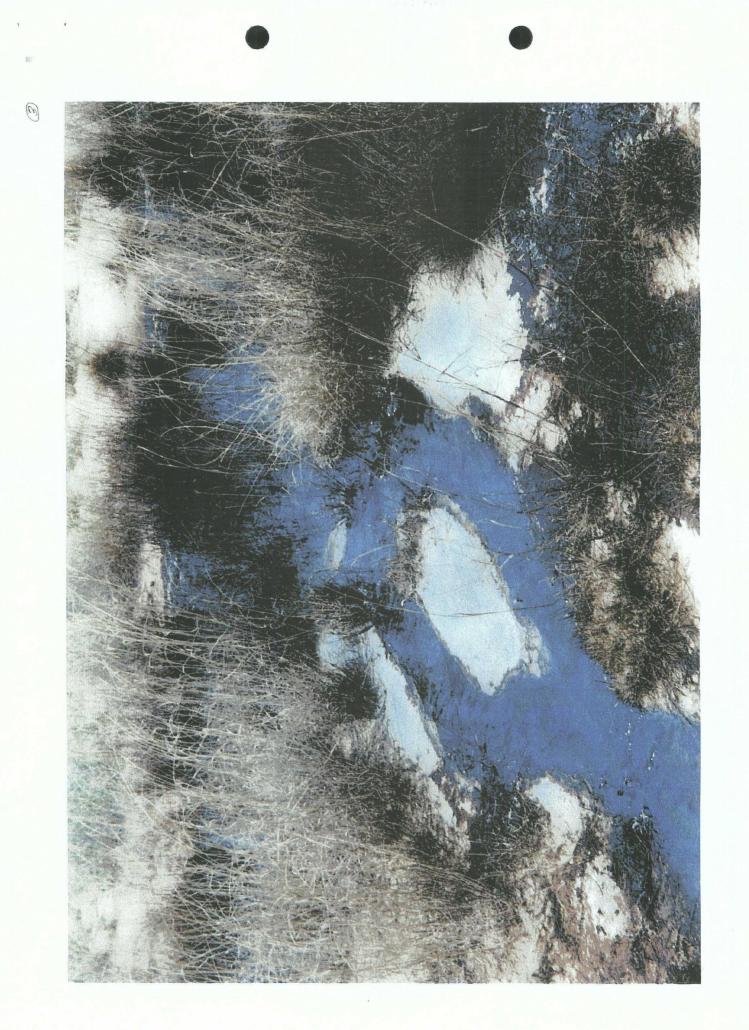
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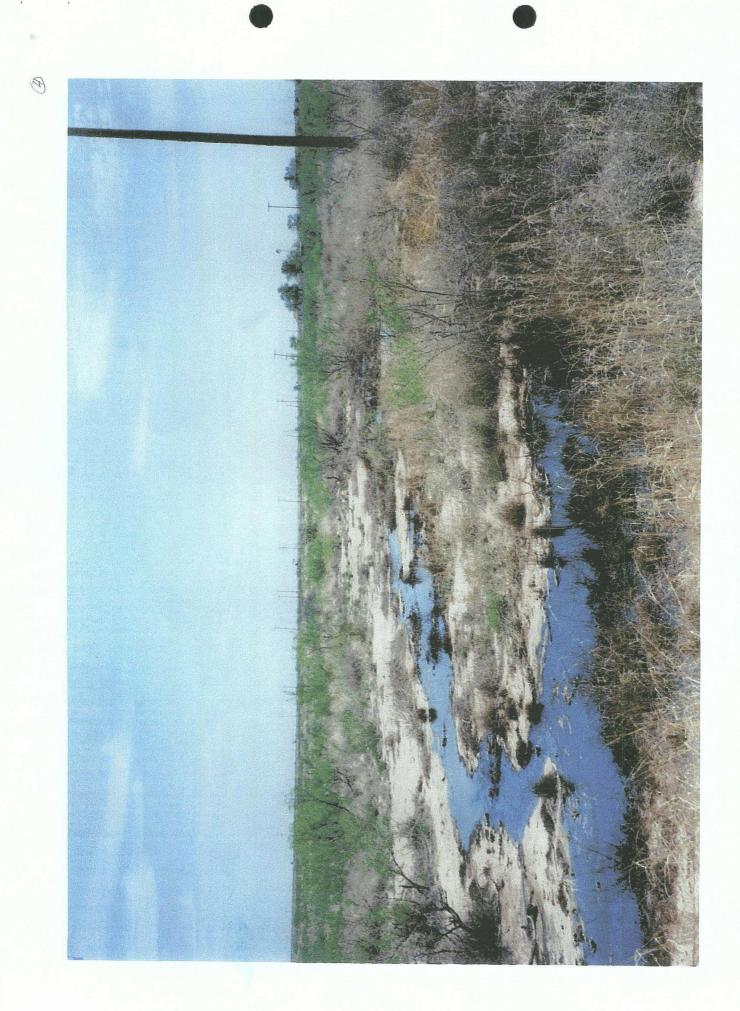
ROCKY TOP RANCH JAL, NM CLAY OSBORN



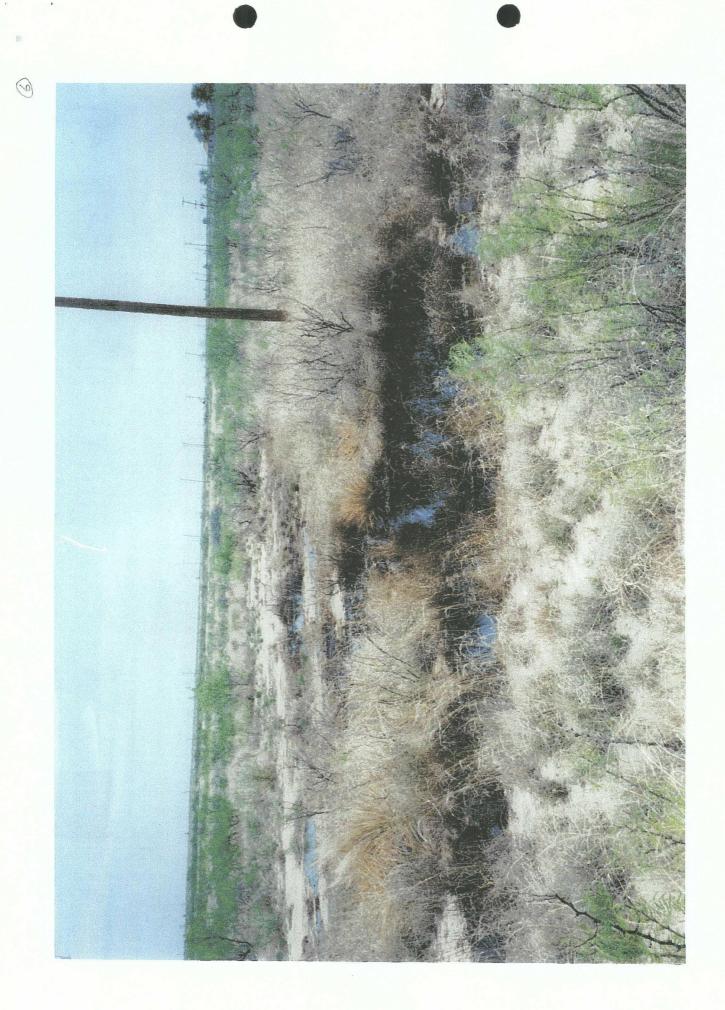
ENJECTION LINE LEAK south of well #9 5-4-97



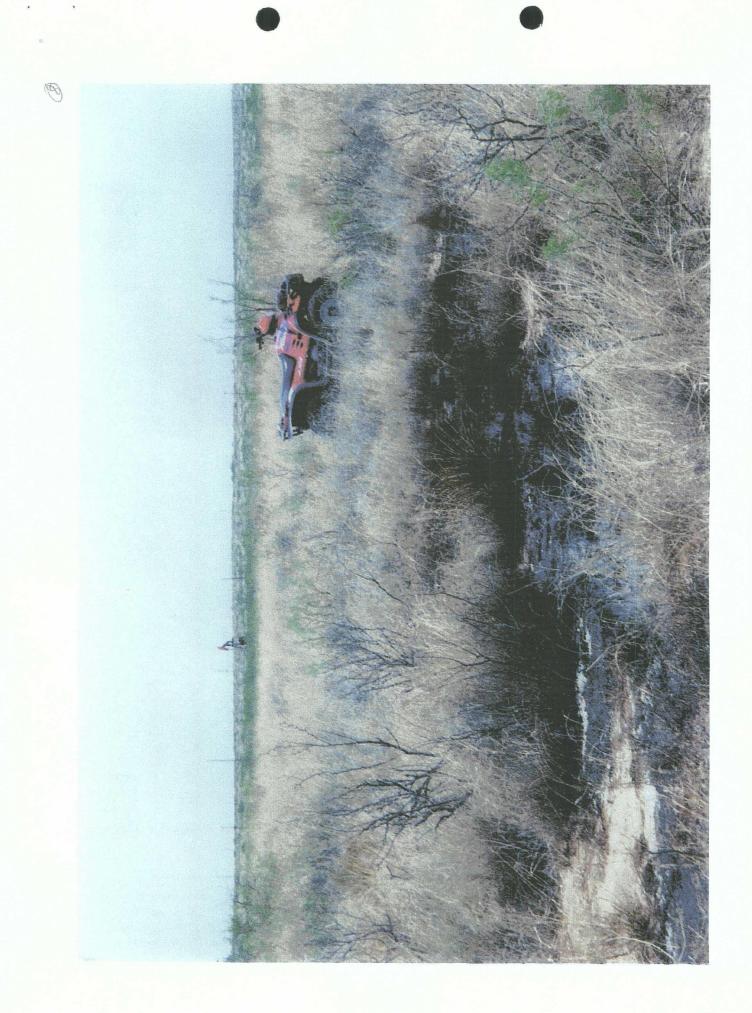






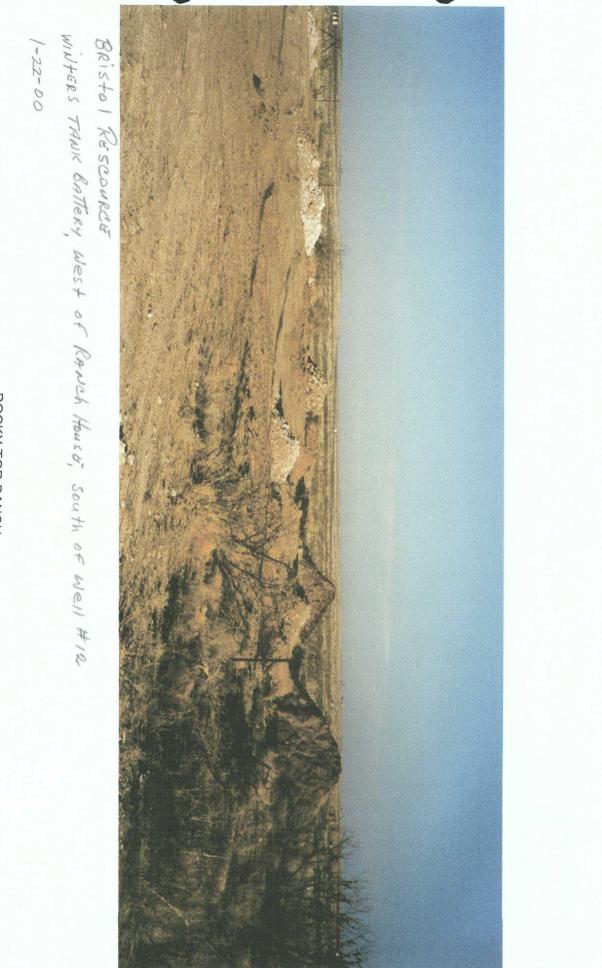








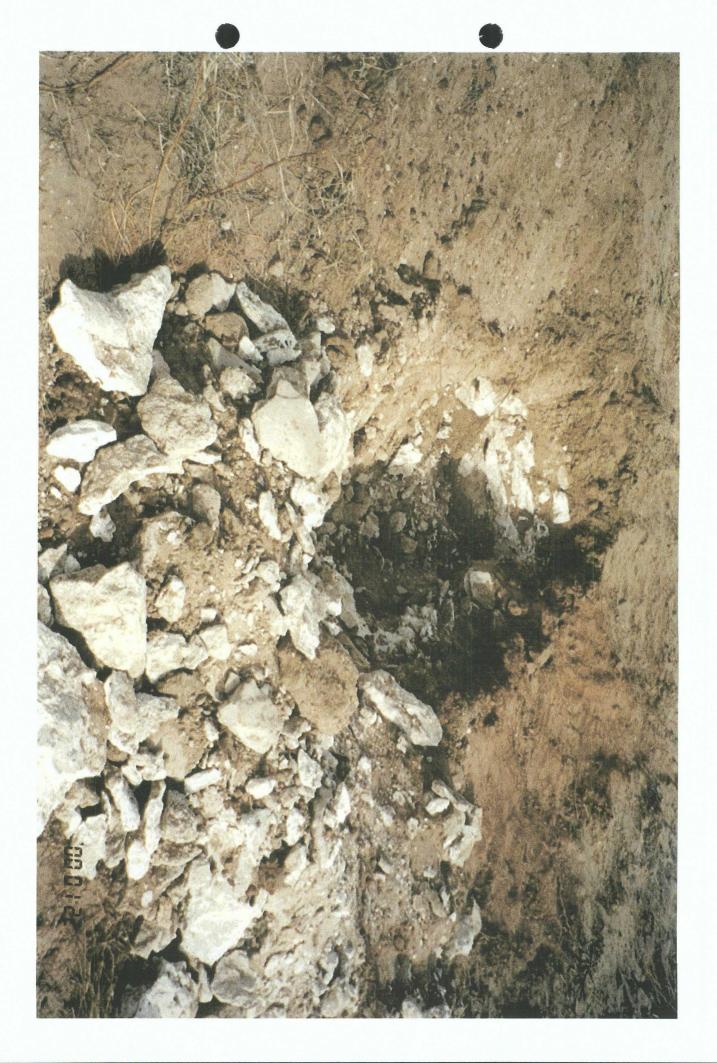




ROCKY TOP RANCH JAL, NM CLAY OSBORN







Olson, William

From:Olson, WilliamSent:Friday, June 30, 2000 10:09 AMTo:'Gary Green'Subject:RE: South Langley Jal Unit

The below referenced extension request is approved.

From: Gary Green [SMTP:GARYG@bristol-resources.com]

Sent: Thursday, June 29, 2000 1:07 PM To: Olson, William Subject: South Langley Jal Unit

Bill, thank you for your call today. I just received your letter of June 15, 2000, it has a June 30, 2000 deadline for request of certain information regarding the referenced unit. I would request an extension of 30 days to your deadline date. Please grant an extension until July 31, 2000. Thank you for your consideration of my request. Should you need anything further, feel free to call me at (918) 523-3024 or by e-mail. Thank you, Gary Green



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON Governor Jennifer A. Salisbury Cabinet Secretary Lori Wrotenbery Director Oil Conservation Division

June 15, 2000

<u>CERTIFIED MAIL</u> RETURN RECEIPT NO. 5051-3273

Mr. James Knipe Bristol Resources Corporation 6655 South Lewis, Suite 200 Tulsa, Oklahoma 74136

RE: SOUTH LANGLEY JAL UNIT

Dear Mr. Knipe:

The New Mexico Oil Conservation Division (OCD) is in receipt of the following Bristol Resources Corporation (BRC) documents which were submitted on behalf on BRC by their consultant Cornerstone Environmental Resources, Inc. These documents contain the results of BRC's investigation of contamination at a produced water leak site and 3 tank battery sites within BRC's South Langley Jal Unit.

- "PHASE II ENVIRONMENTAL ASSESSMENT, JANUARY 2000 SOIL SAMPLING, ABANDONED TANK BATTERIES; SITE 1, SEC 18, T25S, R37E; SITE 2, SEC 18, T25S, R37E; SITE 3, SEC 18, T25S, R37E; SOUTH LANGLEY JAL UNIT, LEA COUNTY, NEW MEXICO".
- November 19, 1999 "SOUTH LANGLEY JAL UNIT, LEA CO. NEW MEXICO".
- "PHASE II ENVIRONMENTAL ASSESSMENT, JULY, 1999 GROUNDWATER SAMPLING, SOUTH LANGLEY JAL UNIT, LEA COUNTY, NEW MEXICO".
- "PHASE II ENVIRONMENTAL ASSESSMENT, JUNE, 1999 SOIL BORINGS, SOUTH LANGLEY JAL UNIT, LEA COUNTY, NEW MEXICO".
- undated "PHASE II ENVIRONMENTAL ASSESSMENT, SOUTH LANGLEY JAL UNIT, LEA COUNTY, NEW MEXICO".

The OCD has also reviewed the following documents submitted by Safety & Environmental Solutions on behalf of Mr. Clay Osborn which contain the results of Mr. Osborn's investigation of contamination on the Rocking R Ranch on which the South Langley Jal Unit is located:

- March 20, 2000 "HYDROGEOLOGY AND GROUNDWATER IN THE VICINITY OF THE OSBORN RANCH, JAL, NEW MEXICO SECTIONS 12 AND 13, T25S, R36E, SECTIONS 7 AND 18, T25S, R37E".
- March 20, 2000 "ENVIRONMENTAL SITE ASSESSMENT OSBORN RANCH, SECTIONS 7 AND 18 OF TOWNSHIP 25 SOUTH RANGE 37 EAST, SECTIONS 12 AND 13 OF TOWNSHIP 25 SOUTH RANGE 35 EAST, LEA COUNTY, NEW MEXICO".

The OCD also met with Mr. Osborn at his request on June 1, 2000 and inspected several BRC leak and spill sites and former tank battery locations. A review of the above documents shows that ground water downgradient of BRC's operations, including ground water from Mr. Osborn's private drinking water wells, is contaminated in excess of New Mexico Water Quality Control Commission (WQCC) standards. In addition, the OCD's inspection and Mr. Osborn's documents show that there are several other BRC spill sites upgradient of Mr. Osborn's wells that were not addressed in BRC's environmental assessments.

In light of this information, the OCD requires that BRC submit the following information regarding the South Langley Jal Unit such that the OCD can evaluate potential sources of contamination of Mr. Osborn's wells:

- 1. A map showing the locations of all current and former producing wells, injection wells, pipelines, water wells, buildings, pump stations, residences, tanks, pits, spills, disposal areas and other pertinent features within BRC's South Langley Jal Unit.
- 2. A description of each current and former spill, pit and disposal area including the types of materials and volumes lost or disposed at each site.

The above information shall be submitted to the OCD Santa Fe Office by June 30, 2000 with a copy provided to the OCD Hobbs District Office. If you have any questions, please call me at (505) 827-7154.

Sincerely, William C. Olson

William C. Olson Hydrologist Environmental Bureau

xc: Chris Williams, OCD Hobbs District Office Clay Osborn

	ENERG	State of New Mexico ILS and NATURAL RESC Santa Fe, New Mexico 87	
	MEMORAND	DUM OF MEETING OR CC	
	Personal	ime 0815	Date 2/29/00
Dave Boyen - S	riginating Party Rety + Environment 257 201 - 85		<u>Other Parties</u> 11 Obon - OCN
Subject Clay Osbor		Wata Contam	inction
Discussion Discuss d	l'érice contra	A L	scond writer and
Clay Dish	Prine y crater Martin, ground	wells i	sroud water and
Bristol Keson Osborne has	sued Bristol	over contranth	Osborne Rand et.m. Set for trial
Also contori		al Golf Course	
Conclusions or Agree They will Within	next 1-2 W	with interm eles	ction on site
Distribution Bristol Re Donne Willia	sources file ms - OCD Hob	Signed /	Mil Don

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STATE OF NEW MEXICO

FACSIMILE TRANSMITTAL SHEET

TO:	FROM:	
BILL OLSON	DO	NNA WILLIAMS
FAX NUMBER:	DATE:	
827-8177	12-2	9-99
COMPANY:	TOTAI COVER	NO. OF PAGES INCLUDING
OCD-ENVIRONM BUREAU	ENTAL 33	
PHONE NUMBER:	SENDE	R'S REFERENCE NUMBER:
RE:	YOUR	REFERENCE NUMBER:
	505-	393-6161 EXT113
SUBPOENA		
🗂 URGENT	DFOR REVIEW	D PLEASE COMMENT
D PLEASE R	EPLY	PLEASE RECYCLE

NOTES/COMMENTS:

Bill,

This is a copy of the subpeona; let me know if I need to do something specific. Thanks

IF YOU HAVE ANY QUESTIONS PLEASE DON'T HESITATE TO CALL (505)- 393-6161 EXT...113

DONNA WILLIAMS

1625 N. FRENCH DR. + HOBBS, NEW MEXICO 86240 PHONE: 505-595-6161...EXT.113 = FAX: 505-393-0720



STATE OF NEW MEXICO FIFTH JUDICIAL DISTRICT COURT COUNTY OF LEA

CLAY OSBORN and GERALDINE B. OSBORN, husband and wife,

Plaintiffs,

V\$.

CV99-00230C

BRISTOL RESOURCES CORPORATION, TEXACO EXPLORATION AND PRODUCTION, INC., PENROC OIL CORPORATION, and APACHE CORPORATION,

Defendants.

SUBPOENA

THE STATE OF NEW MEXICO

To: Donna Williams

You and each of you are hereby commanded to be and appear before The Honorable Gary L. Clingman, District Judge, of the Fifth Judicial District in and for the

County of Lea, at the time and place listed below to testify in the above-entitled action on

behalf of Bristol Resources Corporation:

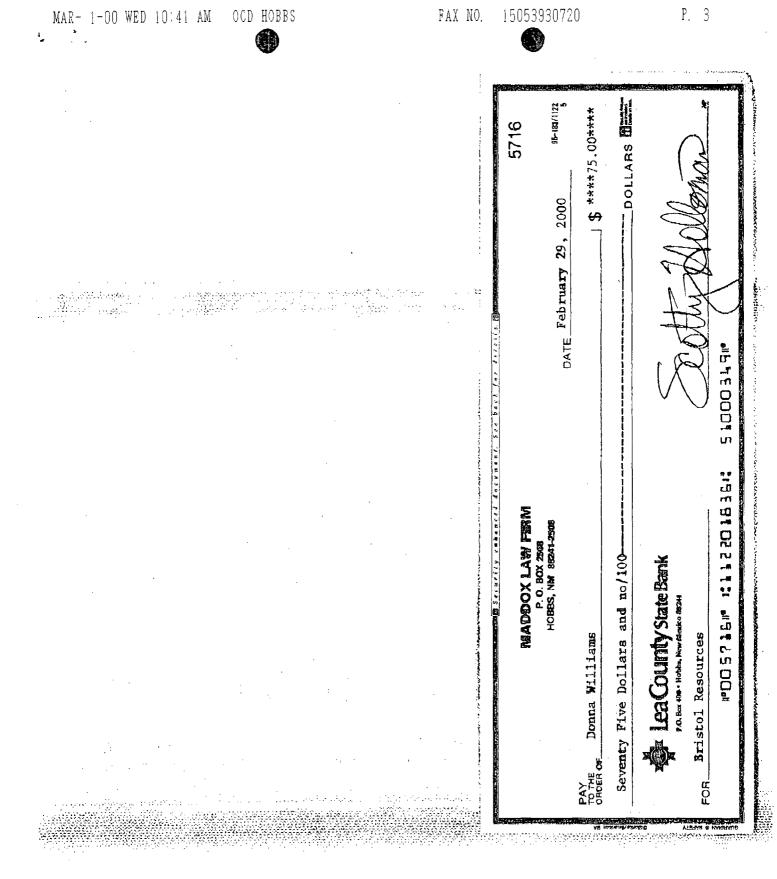
Date: March 7.8, and 9, 2000 Time: 8:30 a.m.

Location: Lea County Courthouse. Lovington_New Mexico

WITNESS The Honorable <u>Gary Clingman</u>, Judge of the District Court in and for Lea County, New Mexico, and the Seal of said Court, this <u>28</u> day of <u>755</u>, 2000.

JANIE G. HERNANDE CLERK OF THE DISTRICT COURT Вy Deputy

Attorney _____ Sharon Sandle/Maddox & Holloman, P.C. Address/Phone P.O. Box 2508, Hobbs, NM 88241 (505) 393-0505



.



NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION DISTRICT | HOBBS PO BOX 1980, Hobbs, NM 88241 (505) 393-6161 FAX (505) 393-0720

Jennifer A. Salisbury CABINET SECRETARY

December 2, 1999

Mr. James Knipe Bristol Resources 6655 South Lewis Suite 200 Tulsa, Oklahoma 74136

Re: Locations around the South Langley Jal Unit UL A, Sec 18, T25S, R37E UL O, Sec 18, T25S, R37E UL P, Sec 18, T25S, R37E

Dear Mr. Knipe,

The New Mexico Oil Conservation Division (NMOCD) is in receipt of Bristol Resources (Bristol) August 18, 1999 site assessments performed on the above referenced locations. The NMOCD hereby approves of the work plans contained in these assessments with the following conditions:

- 1. Bristol shall provide the legal locations of each site in future investigation and/or remediation reports (ie. Unit Letter, Section, Township and Range). This information was requested in previous correspondence with Bristol.
- 2. Bristol shall remediate soil contamination at each site in accordance with the NMOCD's Guidelines for Remediation of Leaks, Spills and Releases.
- 3. Bristol shall delineate the vertical and horizontal extent of the contamination in accordance with the NMOCD's Guidelines for Remediation of Leaks, Spills and Releases. The delineation can be performed while remediation is in progress.
- 4. All waste disposed of off-site must receive NMOCD approval prior to disposal.
- 5. Bristol shall notify the NMOCD at least 48 hours in advance of the scheduled activities such that the NMOCD has the opportunity to witness the events and/or split samples during NMOCD's normal working hours.

Bristol Resources 12-02-99

6. Bristol shall submit information on the location of any landfarming activities to the NMOCD for approval prior to conducting the activities.

If you have any questions or require any further information or assistance, please do not hesitate to call at (505) 393-6161 ext...113 or write this office.

Sincerely,

onna u)illiams

Donna Williams Environmental Engineer Specialist

cc: Chris Williams, NMOCD Hobbs District Supervisor Roger Anderson, NMOCD Environmental Bureau Chief

BRISTOL RESOURCES

Corporation

6655 South Lewis

Suite 200

New Mexico Energy, Minerals, & Natural Resources Department Oil Conservation Division Attn: Ms. Donna Williams P.O. Box 1980 Hobbs, New Mexico 38241

Tulsa, Oklahoma 74136 (918) 492-7900 FAX (918) 492-7944 Re:

South Langley Jal Lea Co. New Mexico

Dear Ms. Williams

Pursuant to your letter dated November 1-1999 enclosed please find a copy of the report from Cornerstone Environmental dated August 18, 1999 concerning the area in question. The sites are set forth on the color graph included in the report. It was my understanding that the OCD had been provided a copy of this document previously. I apologize for any inconvenience caused by its delay.

If additional information is needed please contact me (918) 492-7900.

Sincerely, ameo James A. Knipe

Cornerstone Environmental Resources, Inc.



August 18, 1999

Mr. Dan Abney Bristol Resources Corporation 6655 S. Lewis, Suite 200 Tulsa, OK 74136

Re: Abandoned Tank Battery Sites Results of Laboratory Analysis Taken July 20, 1999 South Langley Jal Unit Lea Co. New Mexico

Dear Mr. Abney,

I was asked by Don Tyler to go with him and Ms. Donna Williams with the New Mexico Oil & Gas Conservation Division to visit three abandoned tank battery sites in the South Langley Jal Unit. The attached Figures show the location of the South Langley Jal Unit and the approximate location of the three sites visited. On July 20, 1999 we visited the sites and Ms Williams pointed out tests she would like to see run and some locations at the abandoned facilities she would like to see tested. On July 20, 1999, Ms. Connie Smith and I took soil samples at the abandoned facilities for analysis. The purpose of this letter is to document the results of those tests.

Site 1 had two out of service storage tanks with a fence around the tanks. A sign at the facility identified the site as the Winters E Lease Tank Battery. Figure 3 is a Site Map of the facility. A heavy tar material that looked like tank bottoms was located in a depression inside the firewall of the battery. The material appeared to be on the north and east side of battery. A backhoe was used to dig a trench on the east side as shown of Figure 1. Six inches of tar material was seen on the side of the trench closest to the tanks and 3 inches of material on the east side of the trench. The ground was soft and the backhoe created deep ruts where it crossed the material. Because the area was soft, only one trench was dug to prevent enlarging the area impacted by the hydrocarbon material. A soil sample was taken and analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX). None of these materials were detected in the sample. Total petroleum hydrocarbons (TPH) were measured based on analysis of gasoline range organics and diesel range organics. The TPH in the gasoline range were 23.1 mg/kg and in the diesel range were 13,900 mg/kg. A copy of the Core Laboratory report on the analysis is attached.

Site 2 shown on Figure 4 did not have any equipment located on the site. There was a built up area present where the storage tanks would have been located. A hard pan of hydrocarbon material was present on the east side of the location. Three trenches as indicated on Figure 4 were dug with a backhoe. A hard hydrocarbon material was seen at the surface where trenches on the east side were dug. There was a hydrocarbon odor in the trench in the southeast corner. The TPH values measured are shown on Figure 4. There were no BTEX compounds measured in any of the samples. The only gasoline range organics measured was 1.55 mg/kg in the sample from the southeast corner. This was the area where an odor was detected. The diesel range organics ranged from 40.2 mg/kg in the southwest corner to 4,440 mg/kg in the northwest corner.





Site 3 appeared to be a former flare pit located to the west of an abandoned tank battery site. Figure 5 is a plot plan showing the location of a pipe from the former tank battery and the location of the samples. Ms. Williams said she would like to have a sample taken from the wall of the pit opposite the pipe and from the bottom of the pit. A sample was also taken from the wall of the pit where the pipe was located. No BTEX nor TPH in the gasoline range was detected in the three samples. A TPH measurement in the heavier organics range was detected in the sample from the east wall and from the center of the pit. The concentration on the east wall was 380 mg/kg and the TPH in the center of the pit was 24,300 mg/kg.

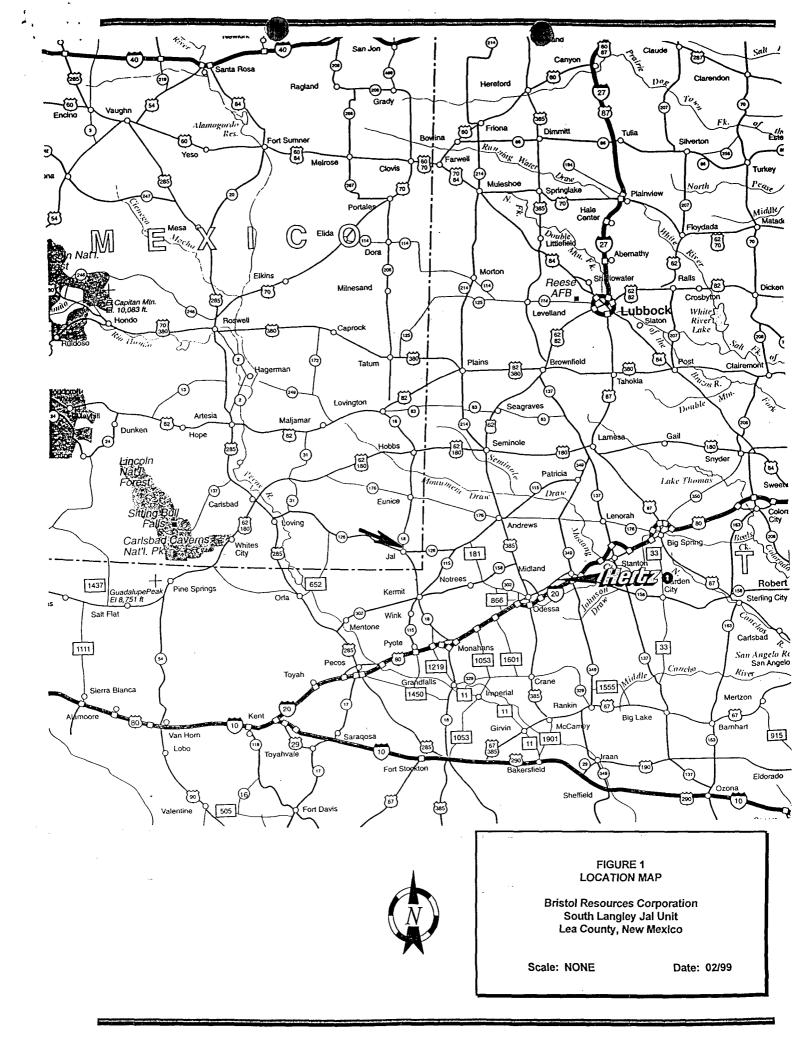
It is our opinion that the material at Site 1 should be removed for treatment or disposal. The material is in a soft semi liquid state which could be problem with live stock when the fence and tanks are removed. We do not believe the material at the other sites offer a threat to environment. We do suggest the hard pan on the east side of Site 2 be broken up and the soil tilled to allow air to contact soil and allow natural bioremediation to occur. The material in the bottom of the pit at Site 3 should be removed from the pit prior to backfilling of the pit. There were no indications of light hydrocarbons in the pit. However bringing the material to the surface prior to backfilling the pit would allow the material to be in contact with the air and permit bioremediation to occur.

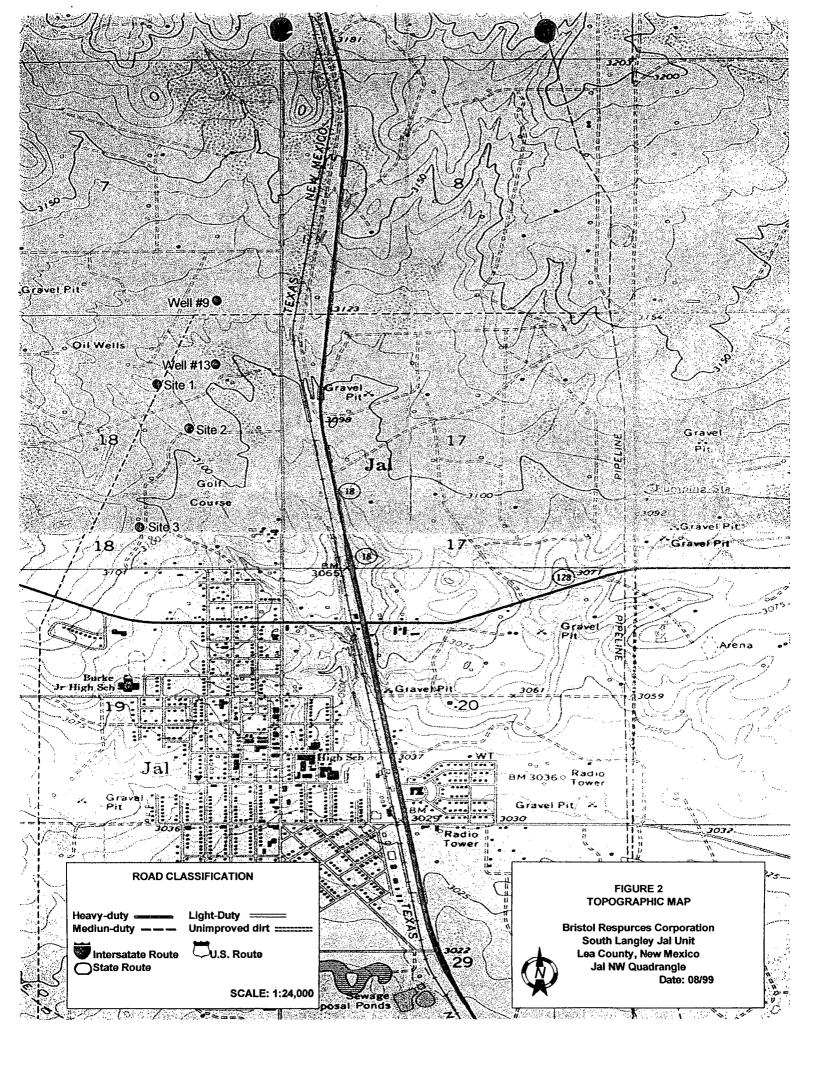
If you have any questions concerning the analysis or the recommendations please do not hesitate to call me at 972-243-7643.

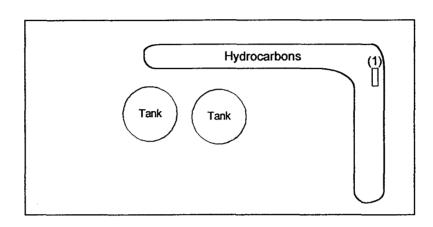
Sincerely, CORNERSTONE ENVIRONMENTAL RESOURCES, INC.

Alden

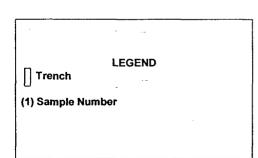
John H. Alderman, P. E. JHA/rnj







(1) TPH 23.1 Mg/Kg Gasoline Range TPH 13,900 Mg/Kg Diesel Range **BTEX Non Detected**



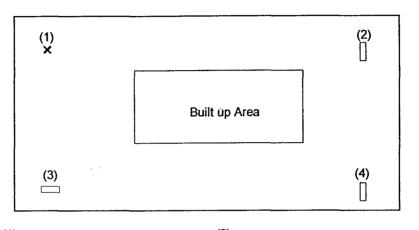
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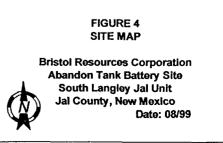
Bristol Resources Corporation Winters Tank Battery South Langley Jai Unit Jal County, New Mexico Date: 08/99

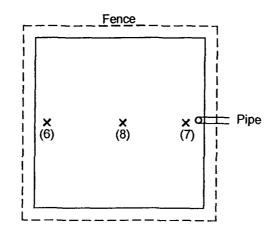


- (1) TPH non Detected Gasoline Range
TPH 180 Mg/Kg Diesel Range
BTEX Non Detected(2) TPH Non Detected Gasoline Range
TPH 4,440 Mg/Kg Diesel Range
BTEX Non Detected
- (3) TPH Non Detected Gasoline Range (4) TPH 1.55 Mg/Kg Gasoline Range TPH 40.2 Mg/Kg Diesel Range BTEX Non Detected BTEX Non Detected BTEX Non Detected

LEGEN rench ample Number	٩D		
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- (6) TPH Non Detected Gasoline Range
TPH Non Detected Diesel Range
BTEX Non Detected(7) TPH Non Detected Gasoline Range
TPH 380 Mg/Kg Diesel Range
BTEX Non Detected
- (8) TPH Non Detected Gasoline Range TPH 24,300 Mg/Kg Diesel Range BTEX Non Detected

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	FIGURE 5 SITE MAP
В	istol Resources Corporation Abandon Flare Pit Site South Langley Jal Unit Jal County, New Mexico Date: 08/99

South Langley Jal Unit Attachment A

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GULF STATES ANALYTICAL

08/02/99

Mr. John Alderman Cornerstone Environmental 2997 LBJ Frwy., Ste. 103 Dallas, TX 75234

Reference: Project: S.Langley JAL Unit Jal, New Mexico Project No.: 99003 Date Received: 07/22/99 GSA Group: 51962 Group Report Date: 08/02/99

Dear Mr. Alderman:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

Winter 01 :270923Winter 02 :270924Winter 03 :270925Winter 04 :270926Winter 05 :270927Winter 06 :270928Winter 07 :270929Winter 08 :270930

All holding times were met for the tests performed on these samples.

Our A2LA accreditation requires that, should this report be reproduced, it must be reproduced in total.

Enclosed please find the Quality Control Summary. All quality control results for the QC batch that are applicable to this sample(s) are acceptable except as noted in the QC batch reports.

If the report is acceptable, please approve the enclosed invoice and forward it for payment.

Thank you for selecting Core Lab - Gulf States Analytical to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

Sincerely yours,

Ed Fry Project Manager

Enclosure



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GULF STATES ANALYTICAL

ANALYSIS SUMMARY REPORT

Cornerstone Environmental 2997 LBJ Frwy., Ste. 103 Dallas, TX 75234-7606			51962 ted: 08/02/1999 ved: 07/22/1999
Attn: Mr. John Alderman Project: S.Langley JAL Unit Jal, Ne	w Mexico	Purchase O Project No	rder: 99003 .: 99003
	Results		Limit of
Test Analysis	as Received	Units	Quantitation
Sample:270923 - 07/20/1999 - Winter 01			
0538H TPH, Gasoline Range Organics, SW 0511E Purgeable Aromatics, BTEX Solids	23,100	ug/kg	10,000
Benzene	ND	ug/kg	20
Toluene	ND	ug/kg	20
Ethylbenzene	ND	ug/kg	20
Xylene (total)	ND	ug/kg	60
0539H TPH, Diesel Range Organics	13,900,000	ug/kg	1,660,000
Sample:270924 - 07/20/1999 - Winter 02			
0538H TPH, Gasoline Range Organics, SW	ND	ug/kg	1,000
0511E Purgeable Aromatics, BTEX Solids			
Benzene	ND	ug/kg	20
Toluene	ND	ug/kg	20
Ethylbenzene	ND	ug/kg	20
Xylene (total)	ND	ug/kg	60
0539H TPH, Diesel Range Organics	180,000	ug/kg	33,200
Sample:270925 - 07/20/1999 - Winter 03			
0538H TPH, Gasoline Range Organics, SW	ND	ug/kg	1,000
0511E Purgeable Aromatics, BTEX Solids		ug/ kg	1,000
Benzene	ND	ug/kg	20
Toluene	ND	ug/kg	20
Ethylbenzene	ND	ug/kg	20
Xylene (total)	ND	ug/kg	60
0539H TPH, Diesel Range Organics	4,440,000	ug/kg	830,000
Sample:270926 - 07/20/1999 - Winter 04			
0538H TPH, Gasoline Range Organics, SW	1,550	ug/kg	1,000
0511E Purgeable Aromatics, BTEX Solids	1,000	ag, kg	1,000
Benzene	ND	ug/kg	20
Toluene	ND	ug/kg	20
Ethylbenzene	ND	ug/kg	20
Xylene (total)	ND	ug/kg	60
0539H TPH, Diesel Range Organics	4,160,000	ug/kg	332,000
Sample:270927 - 07/20/1999 - Winter 05			
0538H TPH, Gasoline Range Organics, SW	ND	ug/kg	1,000



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GULF STATES ANALYTICAL

ANALYSIS SUMMARY REPORT

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Cornerstone Environmental

GSA Group: 51962

	Results		Limit of
m of a selection	as Received	Units	Quantitation
Test Analysis	as Received		
Sample:270927 - 07/20/1999 - Winter 05			
0511E Purgeable Aromatics, BTEX Solids			
Benzene	ND	ug/kg	20
Toluene	ND	ug/kg	20
Ethylbenzene	ND	ug/kg	20
Xylene (total)	ND	ug/kg	60
0539H TPH, Diesel Range Organics	40,200	ug/kg	8,300
Sample:270928 - 07/20/1999 - Winter 06			
0538H TPH, Gasoline Range Organics, SW	ND	ug/kg	1,000
0511E Purgeable Aromatics, BTEX Solids			
Benzene	ND	ug/kg	20
Toluene	ND	ug/kg	20
Ethylbenzene	ND	ug/kg	20
Xylene (total)	ND	ug/kg	60
0539H TPH, Diesel Range Organics	ND	ug/kg	332,000
Sample:270929 - 07/20/1999 - Winter 07			
0538H TPH, Gasoline Range Organics, SW	ND	ug/kg	1,000
0511E Purgeable Aromatics, BTEX Solids			
Benzene	ND	ug/kg	20
Toluene	ND	ug/kg	20
Ethylbenzene	ND	ug/kg	20
Xylene (total)	ND	ug/kg	60
0539H TPH, Diesel Range Organics	380,000	ug/kg	166.000
Sample:270930 - 07/20/1999 - Winter 08			
0538H TPH, Gasoline Range Organics, SW	ND	ug/kg	1,000
0511E Purgeable Aromatics, BTEX Solids			
Benzene	ND	ug/kg	20
Toluene	ND	ug/kg	20
Ethylbenzene	ND	ug/kg	20
Xylene (total)	ND	ug/kg	60
0539H TPH, Diesel Range Organics	24,300,000	ug/kg	16,600,000

Test Method Summary:



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GULF STATES ANALYTICAL

	ANALYSI	s summai	XY REP	PORT			Page	3	
Cornerstone Environmental					GSA	Group:	51962		
Test Method Summary: 0511E- SW-846 8021B	0538H-	SW-846	8015A	MOD		0539H-	SW-846	8015A	MOD

ND - Compound was analyzed but not detected.

Respectfully Submitted, Reviewed and Approved by:

Core Laboratories, Inc. 6310 Rothway, Houston, Texas 77040, (713) 690-4444, Fax (713) 690-5646



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Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting

Units: ug/kg

Sequence: BTX1710

QC LIMITS



Analysis Batch Number: 0511E-07/26/99-1205-1 Test Identification : 0511E-Purgeable Aromatics, BTEX Solids Number of Samples : 52 Batch Data-Date/Time : 07/29/99 / 12:06:35

BLANK# ANALYTE LMT OF QUANTITATION CONC FOUND # 4-072799 Benzene 8.4349 20.0000 Toluene 20.0000 5.0237 Ethylbenzene 3.0706 20.0000 m,p-Xylene 60.0000 3.8907 4-072799-2 Benzene 15.0022 20.0000 m,p-Xylene 60.0000 4.6481 23-072899-3 Benzene 9.0648 20.0000 Toluene 5.6813 20.0000 Ethylbenzene 2.4049 20.0000 m,p-Xylene 3.5115 60.0000 23-072899-4 Benzene 20.0000 16.5135 m,p-Xylene 4.5811 60.0000

SPIKE

<u>Sample#</u>	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	X REC #	LOWER	UPPER	
51968-270967	Benzene	1000.0000	6.9720	907.3886	90.0	70.0	130.0	
	Toluene	1000.0000	3.7988	922.4063	91.9	70.0	130.0	
	Ethylbenzene	1000.0000	0.000	941.8681	94.2	70.0	130.0	
	o-Xylene	1000.0000	0.000	945.3803	94.5	70.0	130.0	
	m,p-Xylene	2000.0000	0.000	1830.8220	91.5	70.0	130.0	
51968-270967-2	Benzene	1000.0000	12.7892	985.7218	97.3	70.0	130.0	
	Toluene	1000.0000	0.000	993.5193	99.4	70.0	130.0	
	Ethylbenzene	1000.0000	0.000	1005.8677	100.6	70.0	130.0	
	o-Xylene	1000.0000	0.000	1020.3614	102.0	70.0	130.0	
	m,p-Xylene	2000.0000	0.000	2050.3303	102.5	70.0	130.0	
52055-271392-3	Benzene	1000.0000	10.1425	1043.3696	103.3	70.0	130.0	
	Toluene	1000.0000	4.3305	1057.4746	105.3	70.0	130.0	
	Ethylbenzene	1000.0000	3,3005	1042.0484	103.9	70.0	130.0	
	o-Xylene	1000.0000	0.0000	1046.8812	104.7	70.0	130.0	
	m,p-Xylene	2000.0000	12.6707	2051.8764	102.0	70.0	130.0	
52055-271392-4	Benzene	1000.0000	14.2107	1039.9968	102.6	70.0	130.0	
	Toluene	1000.0000	31.5203	1038.8227	100.7	70.0	130.0	
	Ethylbenzene	1000.0000	0.000	1028.9471	102.9	70.0	130.0	
	o-Xylene	1000.0000	0.0000	1043.3313	104.3	70.0	130.0	
	m.p-Xylene	2000.0000	10.4830	2110.3551	105.0	70.0	130.0	
MSD						QC LIM	UTS	
	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	*REC2 #			RPD
51968-270967	Benzene	1000.0000	6.9720	904.4729	89.8		130.0	0.2
· · · ·	Toluene	1000_0000	3 7988	913 9816	91 0	70 0		1 0

SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	LIMIT
51968-270967	Benzene	1000.0000	6.9720	904.4729	89.8	70.0	130.0	0.2	20.
	Toluene	1000.0000	3.7988	913.9816	91.0	70.0	130.0	1.0	20.
	Ethylbenzene	1000.0000	0.0000	930.2753	93.0	70.0	130.0	1.3	20.
	o-Xylene	1000.0000	0.0000	937.5446	93.8	70.0	130.0	0.7	20.
	m,p-Xylene	2000.0000	0.0000	1804.4558	90.2	70.0	130.0	1.4	20.
51968-270967-2	2 Benzene	1000.0000	12.7892	981.4952	96.9	70.0	130.0	0.4	20
	Toluene	1000.0000	0.0000	976.0152	97.6	70.0	130.0	1.8	20.
	Ethylbenzene	1000.0000	0.0000	974.0634	97.4	70.0	130.0	3.2	20
	o-Xylene	1000.0000	0.0000	1003.9410	100.4	70.0	130.0	1.6	20
	m,p-Xylene	2000.0000	0.0000	1988.8735	99.4	70.0	130.0	3.1	20
52055-271392-3	3 Benzene .	1000.0000	10.1425	1010.4656	100.0	70.0	130.0	3.2	20 .
	Toluene	1000.0000	4.3305	1013.5478	100.9	70.0	130.0	4.3	20

Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting



08/04/99 15:17:35 Group: 51962

Analysis Batch Number: 0511E-07/26/99-1205-1 Test Identification : 0511E-Purgeable Aromatics, BTEX Solids Units: ug/kg Sequence: BTX171Q Number of Samples 52 ٠ Batch Data-Date/Time : 07/29/99 / 12:06:35 OC LIMITS MSD LIMIT CONC ADDED CONC SAMPLE RESULT 2 %REC2 # LOWER UPPER RPD # SAMPLE# ANALYTE 3.3005 1003.3167 100.0 70.0 130.0 3.8 20.0 1000.0000 52055-271392-3 Ethylbenzene 20.0 70.0 130.0 o-Xylene 0.0000 1011.8506 101.2 3.4 1000.0000 98.2 70.0 130.0 3.8 20.0 12.6707 1976.1411 m.p-Xvlene 2000.0000 52055-271392-4 Benzene 1000.0000 14.2107 1007.2462 99.3 70.0 130.0 3.3 20.0 1005.4596 97.4 70.0 130.0 3.3 20.0 31.5203 Toluene 1000.0000 99.9 70.0 130.0 3.0 20.0 0.0000 999.0439 1000.0000 Ethylbenzene 70.0 130.0 2.7 20. 101.5 o-Xylene 1000.0000 0.0000 1015.3283 20. 10.4830 2049.2471 101.9 70.0 130.0 3.0 2000.0000 m,p-Xylene QC LIMITS CONTROL CONC KNOWN CONC FOUND % REC # LOWER UPPER SAMPLE# ANALYTE 104.0 1000.0000 80.0 120.0 3-072799 Benzene 1040.3319 104.5 80.0 120.0 1044.6987 1000.0000 Toluene 108.1 80.0 120.0 1000.0000 Ethv]benzene 1081.3339 1050.3276 105.0 1000.0000 80.0 120.0 o-Xylene 2066.6277 2000.0000 103.3 80.0 120.0 m.p-Xylene 112.8 80.0 120.0 3-072799-2 1128.1694 1000.0000 Benzene 1124,4183 1000.0000 112.4 80.0 120.0 Toluene 113.9 80.0 120.0 1000.0000 **Ethylbenzene** 1138.6882 o-Xylene 1131.9344 1000,0000 113.2 80.0 120.0 114.4 80.0 120.0 m.p-Xylene 2288.4581 2000.0000 94.1 80.0 120.0 22-072899-3 Benzene 940.6866 1000.0000 93.5 80.0 120.0 Toluene 935.0686 1000.0000 94.6 80.0 120.0 Ethylbenzene 945.7297 1000.0000 o-Xylene 937.2726 1000.0000 93.7 80.0 120.0 m,p-Xylene 1826.1098 2000.0000 91.3 80.0 120.0 22.072899-4 Benzene 992.6931 1000.0000 99.3 80.0 120.0 Toluene 976.4808 1000.0000 97.6 80.0 120.0 Ethylbenzene 981.5185 1000.0000 98.2 80.0 120.0 1000.0000 98.0 80.0 120.0 980.3867 o-Xylene 2000.0000 98.9 80.0 120.0 m,p-Xylene 1977.3085 QC LIMITS CCV # ANALYTE TRUE VALUE BATCH READ % REC # LOWER UPPER 2-072799 Benzene 50.0000 51.0789 102.2 85.0 115.0 Toluene. 50.0000 51.1487 102.3 85.0 115.0 Ethylbenzene 50.0000 50.5769 101.2 85.0 115.0 50.3221 100.6 o-Xylene 50.0000 85.0 115.0 m,p-Xylene 100.0000 99.8230 99.8 85.0 115.0 104.7 2-072799-2 52.3656 85.0 115.0 Benzene 50.0000 51.8274 103.7 85.0 115.0 50.0000 Toluene Ethylbenzene 50.0000 51.2171 102.4 85.0 115.0 51.3717 102.7 85.0 115.0 50.0000 o-Xylene 105.1806 105.2 100.0000 85.0 115.0 m,p-Xylene 97.7 19-072799-3 48.8261 85.0 115.0 Benzene 50.0000 96.7 50.0000 48.3709 85.0 115.0 Toluene 47.7825 95.6 85.0 115.0 Ethy1benzene 50.0000

47.3996

93.0340

50.0000

100.0000

o-Xylene

m,p-Xylene

94.8

93.0

85.0 115.0

85.0 115.0

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Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting

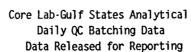


Analysis Batch Number: 0511E-07/26/99-1205-1 Test Identification : 0511E-Purgeable Aromatics, BTEX Solids Number of Samples : 52 Batch Data-Date/Time : 07/29/99 / 12:06:35

Units: ug/kg

Sequence: BTX1710

				QC	LIMITS
<u>ccv #</u>	ANALYTE	TRUE VALUE	BATCH READ	<u>* REC #</u>	
19-072799-4	Benzene	50.0000	51.9466	103.9	85.0 115.0
	Toluene	50.0000	51.2490	102.5	85.0 115.0
	Ethylbenzene	50.0000	50.5359	101.1	85.0 115.0
	o-Xylene	50.0000	50.5696	101.1	85.0 115.0
	m,p-Xylene	100.0000	102.9383	102.9	85.0 115.0
21-072899-5	Benzene	50.0000	49.0847	98.2	85.0 115.0
	Toluene	50.0000	48.6601	97.3	85.0 115.0
	Ethylbenzene	50.0000	47.9167	95.8	85.0 115.0
	o-Xylene	50.0000	47.8094	95.6	85.0 115.0
	m,p-Xylene	100.0000	94.0117	94.0	85.0 115.0
21-072899-6	Benzene	50.0000	51.7661	103.5	85.0 115.0
	Toluene	50.0000	51.1482	102.3	85.0 115.0
	Ethylbenzene	50.0000	50.2417	100.5	85.0 115.0
а.	o-Xylene	50.0000	50.6129	101.2	85.0 115.0
	m,p-Xylene	100.0000	102.9864	103.0	85.0 115.0
37-072899-7	Benzene	50.0000	52.4742	104.9	85.0 115.0
	Toluene	50.0000	51.2300	102.5	85.0 115.0
	Ethylbenzene	50.0000	50.1025	100.2	85.0 115.0
	o-Xylene	50.0000	50.0844	100.2	85.0 115.0
	m,p-Xylene	100.0000	98.4022	98.4	85.0 115.0
37-072899-8	Benzene	50.0000	51.5299	103.1	85.0 115.0
	Toluene	50.0000	50.8117	101.6	85.0 115.0
	Ethylbenzene	50.0000	49.6113		85.0 115.0
	o-Xylene	50.0000	49.8436	99.7	85.0 115.0
	m,p-Xylene	100.0000	101.3081	101.3	85.0 115.0
49-072899-9	Benzene	50.0000	51.8407		85.0 115.0
	Toluene	50.0000	51.6055		85.0 115.0
	Ethylbenzene	50.0000	50.3390		85.0 115.0
	o-Xylene	50.0000	50.3692	100.7	85.0 115.0
	m,p-Xylene	100.0000	98.5105		85.0 115.0
49-072899-10	Benzene	50.0000	51.5938		85.0 115.0
	Toluene	50.0000	51.0287		85.0 115.0
	Ethylbenzene	50.0000	51.9997		85.0 115.0
	o-Xylene	50.0000	49.4742	98.9	85.0 115.0
	m,p-Xylene	. 100.0000	101.1983	101.2	85.0 115.0
52-072999-11	Benzene.	50.0000	51.7143		85.0 115.0
	Toluene	50.0000	50.8827	101.8	85.0 115.0
	Ethylbenzene	50.0000	49.7645		85.0 115.0
	o-Xylene	50.0000	50.0194	100.0	85.0 115.0
	m,p-Xylene	100.0000	97.8686	97.9	85.0 115.0
52-072999-12	Benzene	50.0000	50.9003		85.0 115.0
	Toluene	50.0000	50.1475		85.0 115.0
	Ethylbenzene	50.0000	49.2196		85.0 115.0
	o-Xylene	50.0000	48.9914		85.0 115.0
	m,p-Xylene	100.0000	99.9267		85.0 115.0
55-072999-13	Benzene	50.0000	49.8246		85.0 115.0
	Toluene	50.0000	49.7912		85.0 115.0
	Ethylbenzene	50.0000	48.8673		85.0 115.0
	o-Xylene	50.0000	48.8012		85.0 115.0
	0	30.0000	10.0012		



Analysis Batch Number: 0511E-07/26/99-1205-1 Test Identification : 0511E-Purgeable Aromatics, BTEX Solids U Number of Samples : 52 Batch Data-Date/Time : 07/29/99 / 12:06:35

QC LIMITS ANALYTE LOWER UPPER CCV # TRUE VALUE BATCH READ X REC # 95.9838 85.0 115.0 55-072999-13 m.p-Xylene 100.0000 96.0 85.0 115.0 49.6394 99.3 55-072999-14 Benzene 50.0000 Toluene 49.2089 98.4 85.0 115.0 50.0000 Ethylbenzene 50.0000 48.2120 96.4 85.0 115.0 85.0 115.0 o-Xylene 48.0998 96.2 50.0000 m,p-Xylene 100.0000 98.2457 98.2 85.0 115.0

SURG #:21-0511E-S-SU

JUNU #.21-0311E-3-30		
SAMPLE#	<u>TFT_#_</u>	BFB_#
SAMPLE 51968-270967	70(G)	78
SAMPLE 51968-270967	79	83
SAMPLE 51962-270923	69(G)	73
SAMPLE 51962-270923	79	76
SAMPLE 51962-270924	65(A)	76
SAMPLE 51962-270924	73	76
SAMPLE 51962-270925	92	95
SAMPLE 51962-270925	103	107
SAMPLE 51939-270848	120	140(A)
SAMPLE 51939-270848	122	93
SAMPLE 51939-270849	87	96
SAMPLE 51939-270849	85	97
SAMPLE 51939-270850	95	103
SAMPLE 51939-270850	103	101
SAMPLE 51939-270851	86	94
SAMPLE 51939-270851	98	98
SAMPLE 51939-270852	73	81
SAMPLE 51939-270852	82	84
SAMPLE 51939-270853	84	91
SAMPLE 51939-270853	94	96
SAMPLE 51939-270849	94	98
SAMPLE 51939-270849	105	98
SAMPLE 51939-270848	121	168(D)
SAMPLE 51939-270848	150(D)	106
SAMPLE 51996-271092	87	93
SAMPLE 51996-271092	93	93.
SAMPLE 52055-271392	. 84	93
SAMPLE 52055-271392	83	91
SAMPLE 51962-270926	51(B1)	53(B1)
SAMPLE 51962-270926	55(A)	52(A)
SAMPLE 51962-270927	66(B1)	72
SAMPLE 51962-270927	68(A)	71
SAMPLE 51962-270928	74	86
SAMPLE 51962-270928	76	85
SAMPLE 51962-270929	82	92
SAMPLE 51962-270929	83	90
SAMPLE 51962-270930	97	108
SAMPLE 51962-270930	98	104
SAMPLE 52054-271390	73	93
SAMPLE 52054-271390	84	88

Sequence: BTX1710

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Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting 08/04/99 15:17:37 Group: 51962

Analysis Batch Number: 0511E-07/26/99-1205-1 Test Identification : 0511E-Purgeable Aromatics, BTEX Solids Number of Samples : 52 Batch Data-Date/Time : 07/29/99 / 12:06:35

Units: ug/kg

Sequence: BTX1710

SOKG #:21-0511E-3-30		
SAMPLE#	<u></u>	<u>BFB #</u>
SAMPLE 52054-271391	77	96
SAMPLE 52054-271391	82	90
SAMPLE 51962-270926	66(B1)	75
SAMPLE 51962-270926	67(A)	73
SAMPLE 52101-271648	0(D)	2784(D)
SAMPLE 52101-271648	0(D)	1455(D)
SAMPLE 52101-271648	70	1497(D)
SAMPLE 52101-271648	0(D)	1442(D)
SAMPLE 52054-271390	93	105
SAMPLE 52054-271390	93	94
SAMPLE 52054-271391	91	104
SAMPLE 52054-271391	87	97
BLK 1 4-072799	83	89
BLK 2 4-072799	93	95
BLK 3 23-072899	92	100
BLK 4 23-072899	100	103
SPK 1 51968-270967	73	83
SPK 2 51968-270967	82	89
SPK 3 52055-271392	90	97
SPK 4 52055-271392	92	97
CTL 1 3-072799	103	107
CTL 2 3-072799	114	115
CTL 3 22-072899	86	92
CTL 4 22-072899	93	95
CCV 1 2-072799	93	91
CCV 2 2-072799	95	93
CCV 3 19-072799	86	88
CCV 4 19-072799	93	93
CCV 5 21-072899	88	89
CCV 6 21-072899	94	93
CCV 7 37-072899	88	91
CCV 8 37-072899	88	90
CCV 9 49-072899	87	89
CCV 10 49-072899	87	89
CCV 11 52-072999	86	89 -
CCV 12 52-072999	. 85	87
CCV 13 55-072999	88	88
CCV 14 55-072999	87	87
MSD 1 51968-270967	71	83
MSD 2 51968-270967	79	88
MSD 3 52055-271392	86	94
MSD 4 52055-271392	88	- 94
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SURG #:21-0511E-S-SU

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Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting

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Analysis Batch Number:0511E-07/26/99-1205-1Test Identification:0511E-Purgeable Aromatics, BTEX SolidsUnits:Number of Samples:52Batch Data-Date/Time :07/29/99 / 12:06:35

Units: ug/kg

Sequence: BTX1710

<u>21-0511E-S</u>	-SU - BTEX SOLIDS SURROGATE	QC LI	MITS
<u>SRG ABRV</u> =	SURROGATE DESCRIPTION	LOWER	UPPER
TFT	Trifluorotoluene	70.0	130.0
BFB	p-Bromofluorobenzene	70.0	130.0

..... Result Footnotes

(G) - Marginal Outlier

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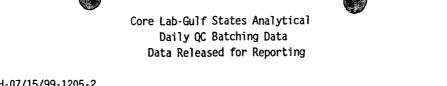
(A) - Matrix Interference

(D) - Surrogate is diluted out

(B1) - Sample(s) rerun to confirm matrix interference.

Groups & Samples

51939-270848	51939-270849	51939-270850	51939-270851	51939-270852	51939-270853	51962-270923	51962-270924			
51962-270925	51962-270926	51962-270927	51962-270928	51962-270929	51962-270930	51968-270967	51996-271092			
52054-271390	52054-271391	52055-271392	52101-271648							



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08/04/99 15:17:39 Group: 51962

BLARK# 127:072793 ANALYTE Gasoline CONC FOUND # 286,5500 UT OF COUNTINITION 1000,0000 163:072893-4 Gasoline 1.397,300(D1) 1000,0000 163:072893-4 Gasoline 1.397,300(D1) 1000,0000 SMPLE# 5506,07007-4 ANALYTE COK ADDED 5500,0000 COK SPIKE 1.802,802 SMPLE# 5508-270067 Gasoline 5500,0000 1412,5500 12004,0000 322,7011 70.0 130.0 S2055-271392-2 Gasoline 5500,0000 1477,5000 6240,5500 322,7011 70.0 130.0 7.7 S2055-271392-2 Gasoline 5500,0000 1472,5500 1004,0001 105.5 70.0 130.0 7.7 S2055-271392-2 Gasoline 5500,0000 1412,5500 10161,8400 175.07 10.0 7.0 130.0 7.7 S2065-271392-2 Gasoline 5500,0000 1412,5500 10161,8400 175.07 10.0 7.7 27.0 CONTROL CONC FOUND CONC FOUND CONC FOUND 10.0 13.0 7.7	Analysis Batch Number: 09 Test Identification : 09 Number of Samples : Batch Data-Date/Time : 09	538H-TPH, G 22	asoline Range (Organics, SW	Units: ug/kg	Sequ	ience: GR071	.66Q			
127.072793 Gasoline 285.500 1000.0000 135.072789-2 Gasoline 584.5900 1000.0000 137.07289-3 Gasoline 1397.3006(11) 1000.0000 SPRE CONC.ADED CONC.SPIKE X REC # LOBER UPPER 51968-270867 Gasoline 5600.0000 1412.5600 1009.0000 S205-271392-3 Gasoline 5000.0000 142.5600 1009.5000 S205-271392-3 Gasoline 5000.0000 142.5600 1009.5000 322.7(11) 70.0 130.0 S205-271392-3 Gasoline 5000.0000 477.9600 4655.4200 32.7 70.0 130.0 7.7 7.7 7.7 S205-271392-3 Gasoline 5000.0000 477.9600 1005.500 100.0 0.0 7.7	BLANK# ANALYTE			CONC FOUND	# LMT OF QU	ANTITATION					
1155-07289-2 Gasoline 564.5900 1000.0000 171-072899-4 Gasoline 1397.3300(01) 1000.0000 SPTLE COXC ADDED COXC ADDED COXC SPTKE C LIMITS SPTLE Souther 5000.0000 442.5500 1019.9 70.0 130.0 S2055-271392-2 Gasoline 5000.0000 447.7900 4665.200 83.7 70.0 130.0 S2055-271392-2 Gasoline 5000.0000 447.7900 4665.200 105.5 70.0 130.0 77. S2055-271392-2 Gasoline 5000.0000 447.7900 4665.200 105.5 70.0 130.0 77. S2055-271392-2 Gasoline 5000.0000 4412.500 1016.1400 105.5 70.0 130.0 77. 70.0 130.0 77. S2055-271392-2 Gasoline 5000.0000 4412.500 1016.1400 175.0(D1) 70.0 130.0 77. S2065-271392-2 Gasoline 5000.0000 477.900 400.155.0 70.0 130.0 77. 72.121.4 S205-271392-2 Gasoline		<u> </u>							-		
133-07289-3. Gasoline 1397.9300(D1) 1000.0000 SPIKE Gasoline 654.9700 1000.0000 SPIKE ANALYTE CONC ADDED CONC SPIKE X REC # LOAGN UPPER S190-1242 Gasoline 5000.0000 1412.9500 1804.0000 32.7 (D1) 70.0 130.0 5205-27132-2. Gasoline 5000.0000 1412.9500 1804.0000 32.7 (D1) 70.0 130.0 5205-27132-2. Gasoline 5000.0000 1412.9500 1804.0000 130.0 7.7 27. 27. 5205-27132-2. Gasoline 5000.0000 1412.9500 10161.800 175.0 (D1) 70.0 130.0 7.7 27. 5205-27132-2. Gasoline 5000.0000 1412.9500 10161.800 175.2 (D1) 70.0 130.0 7.7 27. CONTROL CONC FOUND CONC KNOM X REC # CONC INTIS CONTROL 0.0 1.9 27. CONTROL CONC FOUND CONC KNOM X REC # CONC INTIS CONTROL 0.0 1.9 27. CONTROL CONC FOUND CONC KNOM X REC # CONT INTIS <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>											
171-07289-4 Gasoline 654.9700 1000-0000 SPILE ONL ADDED CONC ADDED CONC SPILE I ADDES I ADDES SPIRE SOUTOR Gasoline 5000.0000 545.3600 6240.5600 113.9 70.0 130.0 S2055-271392-2 Gasoline 5000.0000 1412.9500 18049.0000 33.7 170.0 130.0 SAMPLE# AMALYTE CONC ADDED CONC SMPLE RESULT 2 NEESULT 2						.0000					
SMPLE# AMALYTE CONC ADDED CONC SAPPLE CONC \$FIRE \$ SCE # LOADER LPPER 51968 270967 Gasoline 5000.0000 477.9600 4665.0200 33.7 70.0 130.0 52055 27.1328-2 Gasoline 5000.0000 477.9600 4665.0200 83.7 70.0 130.0 52055 27.1328-2 Gasoline 5000.0000 477.9600 4665.0200 83.7 70.0 130.0 52055 27.1328-2 Gasoline 5000.0000 477.9600 4665.0200 105.5 70.0 130.0 7.7 27. 52055 27.1328-2 Gasoline 5000.0000 1412.9500 10161.6400 105.5 70.0 130.0 7.7 27. 52055 27.1328-2 Gasoline 5000.0000 1412.9500 10161.6400 105.5 70.0 130.0 7.7 27. CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL CONTROL 28.0 70.0 130.0 1.9 27. CONTROL				654.9700	1000	.0000					
SMPLE# ANALYTE CONC ADDED CONC SAPPLE CONC SPIRE SCE2 JACE JACE <thjace< th=""> JACE JACE <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<></thjace<>											
51988-270967 Gasoline 5000.0000 545.3600 6240.6600 112.9 70.0 130.0 52055-271392-3 Gasoline 5000.0000 1412.9500 1040.9600 312.7(DI) 70.0 130.0 SMPLE# AMALYTE CONC ADDED CONC SAMPLE RESULT 2 RECULT 2											
52055-271392-2 Gasoline 5000.0000 1412.9500 18049.600 332.7(D) 70.0 130.0 S2055-271392-3 Gasoline 5000.0000 477.9800 4665.0200 83.7 70.0 130.0 S2055-271392-3 Gasoline 5000.0000 545.3600 552.05.000 105.5 70.0 130.0 7.7 27. S2055-271392-3 Gasoline 5000.0000 1412.9500 106.1 8400 175.001.7 70.0 130.0 62.1 70.0 130.0 62.1 70.0 130.0 62.1 70.0 130.0 62.1 70.0 130.0 62.1 70.0 130.0 62.1 70.0 130.0 62.1 70.0 130.0 1.9 72. S2055-271392-3 Gasoline 5000.0000 101.8 75.2 121.4 70.0 130.0 1.9 72.2 1.1 1.0 72.2 1.1 1.0 72.2 1.1 1.0											
52055-271392-3 Gasoline 5000.0000 477.9800 4665.0200 83.7 70.0 130.0 MSD SAMPLE# AVALYTE CONC ADEED CONC SAMPLE RESUL 72 XECC # LOMEN UPPER NO.0 77.0 130.0 77.0 130.0 S1056-270057 Gasoline 5000.0000 477.9800 CONC SAMPLE RESUL 72 XECC # LOMEN UPPER NO.0 77.0 130.0 77.0 130.0 77.0 130.0 77.0 130.0 77.0 130.0 77.0 130.0 77.0 130.0 77.0 130.0 77.0 130.0 77.0 130.0 77.0 130.0 77.0 130.0 77.0 130.0 77.0											
NSD OC LIMITS SMPLE# ANALYTE CONC ADDED CONC SAMPLE RESULT 2 XREC # LORER UPPER RPD # LIMIT 51968-270967 Gasoline 5000.0000 1412.9500 1016.18400 175. 070.0 130.0 62.1 77.0 27.5 52055-271392-3 Gasoline 5000.0000 147.9900 4584.5700 82.1 70.0 130.0 62.1 70.0 130.0 62.1 70.0 130.0 1.9 27.5 CONTROL OCNC FOUND CONC FOUND CONC FOUND CONC FOUND 00.110.8 75.2 121.4 150.0 100.0 1.9 27.5 CONTROL OCNC FOUND CONC FOUND CONC FOUND 106.4 75.2 121.4 150.0 150.0 100.0 10.9 75.2 121.4 150-072799 Gasoline 250.0000 226.3000 100.19 75.2 121.4 1407299.2 150.0 115.0 141.07279.2 150.0 150.0 150.0 150.0 <											
SAMPL# ANALYTE CONC DOCD CONC SUPPER RESULT 2 RESC # LOWER UPPER RED # LINIT 5305-27392-2 Gasoline 5000.0000 545.300 5820.0800 105.5 70.0 130.0 7.7 27. 52055-27332-2 Gasoline 5000.0000 477.9800 4584.5700 82.1 70.0 130.0 7.7 27. CONTROL CONC FOUND CONC FOUND CONC KICKIN ¥ REC # LOWER UPPER 130.0 1.9 27. CONTROL CONC FOUND CONC FOUND CONC KICKIN ¥ REC # LOWER UPPER 130.0 1.9 27. CONTROL CONC FOUND CONC KICKIN ¥ REC # LOWER UPPER 130.0 1.9 27. CONTROL CONC FOUND CONC KICKIN ¥ REC # LOWER UPPER 130.0 1.9 27. CONTROL CONC FOUND 500.0000 101.8 75.2 121.4 150.0 130.8 15.0 130.8 105.0 150.0 150.0 150.0	52055-271392-3 Gasoline			5000.0000	477.9800	4665.0200	83.7	70.0	130.0		
SAMPL# ANALYTE CONC ADDED CONC SAMPLE RESULT 2 RED # LOWER UPPER RED # LINET 5305-27392-2 Gasoline 5000.0000 472.9800 105.5 70.0 130.0 7.7 27. 52055-27332-2 Gasoline 5000.0000 477.9800 4584.5700 62.1 70.0 130.0 7.7 27. 52055-27332-2 Gasoline 5000.0000 477.9800 4584.5700 62.1 70.0 130.0 1.9 27. CONTROL CONC FOUND CONC KICKIN * REC # LOWER UPPER 125.0 12.9 75.2 121.4 156-07289-3 Gasoline 5094.6000 5000.0000 101.4 75.2 121.4 156-07289-3 Gasoline 250.0000 263.3000 97.1 75.2 121.4 156-07289-3 Gasoline 250.0000 263.3000 105.1 15.0 124-07299-3 Gasoline 250.0000 263.3000 105.0 15.0 144-07299-5 Gasoline 250.0000	MSD							00.11	IITS		
51968:270967 Gasoline 5000.0000 545.3600 5820.0800 105.5 70.0 130.0 7.7 27. 52055:271392:2 Gasoline 5000.0000 1412.9500 10161.8400 175.0(D1) 70.0 130.0 62.1(D1) 27. CONTROL CONC FOUND CONC FOUND CONC KNOWN X REC # LOMER UPPER 27. I26-072799 Gasoline 5320.8200 106.4 75.2 121.4 154-072899-2 Gasoline 5320.8200 5000.0000 101.9 75.2 121.4 156-072899-3 Gasoline 5000.0000 5000.0000 101.9 75.2 121.4 156-072899-4 Gasoline 250.0000 260.0000 97.1 75.2 121.4 170-072899-5 Gasoline 250.0000 267.7500 90.1 85.0 115.0 141-07289-2 Gasoline 250.0000 263.3000 106.3 85.0 115.0 144-07289-3 Gasoline 250.0000 271.4500 108.6 85.0 115.0 144-07289-5 Gasoline 250.0000 271.45				CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #			RPD #	LIMIT
52055-271382-2 Gasoline 5000.0000 1412.9500 10161.8400 175.0(D1) 70.0 130.0 62.1(D1) 27. 52055-271392-3 Gasoline 5000.0000 477.9800 4584.5700 82.1 70.0 130.0 1.9 27. CONTROL CCLLMITS CONC FOUND 5000.0000 110.8 75.2 121.4 156-07289-3 Gasoline 5994.6000 5000.0000 10.9 75.2 121.4 156-07289-3 Gasoline 5994.6000 5000.0000 10.1 85.0 115.0 156-07289-3 Gasoline 250.0000 267.7500 107.1 85.0 115.0 125-07279 Gasoline 250.0000 243.9500 97.6 85.0 115.0 126-07299-2 Gasoline 250.0000 243.9500 97.6 85.0 115.0 126-07299-4 Gasoline 250.0000 271.4500 108.6 85.0 115.0 126-07299-6 Gasoline 250.0000 271.4500 108.6 85.0 115.0 126-07299-6 Gasoline 250.0000 271.4500 108.6		·····									
CONTROL OC LINITS SAPLL# ANALYTE CONC FOUND CONC KNONN \$ REC # LOMER UPPER 126-072799 Gasoline 5537.9700 5000.0000 110.8 75.2 121.4 156-07289-2 Gasoline 5320.8200 5000.0000 101.9 75.2 121.4 156-07289-3 Gasoline 594.6000 5000.0000 101.9 75.2 121.4 170-07289-4 Gasoline 250.0000 225.3100 90.1 85.0 115.0 124-072799 Gasoline 250.0000 225.3100 90.1 85.0 115.0 141-072799-2 Gasoline 250.0000 226.3000 97.6 85.0 115.0 144-072899-3 Gasoline 250.0000 226.3000 97.6 85.0 115.0 144-072899-4 Gasoline 250.0000 271.4500 108.6 85.0 115.0 164-072899-5 Gasoline 250.0000 274.7400 97.9 85.0 115.0 178-072990-6 Gasoline 250.0000 274.7400 97.9 85.0 115.0 SM				5000.0000	1412.9500	10161.8400	175.0(D1)	70.0	130.0	62.1(D1)	27.
SAMPLE# ANALYTE CONC FOUND CONC FOUND CONC # LOWER UPPER 126-072799 Gasoline 5537.9700 5000.0000 110.8 75.2 121.4 156-072899-2 Gasoline 5320.8200 5000.0000 101.8 75.2 121.4 156-072899-3 Gasoline 5094.6000 5000.0000 101.9 75.2 121.4 170-072899-4 Gasoline 4857.1800 5000.0000 97.1 75.2 121.4 126-07299 Gasoline 250.0000 225.3100 90.1 85.0 115.0 124-072899-2 Gasoline 250.0000 243.9500 97.6 85.0 115.0 144-072899-3 Gasoline 250.0000 243.9500 97.6 85.0 115.0 144-072899-4 Gasoline 250.0000 241.7400 97.9 85.0 115.0 126-072899-5 Gasoline 250.0000 244.7400 97.9 85.0 115.0 1278-07299-6 Gasoline 250.0000 244.7400 <td>52055-271392-3 Gasoline</td> <td></td> <td></td> <td>5000.0000</td> <td>477.9800</td> <td>4584.5700</td> <td>82.1</td> <td>70.0</td> <td>130.0</td> <td>1.9</td> <td>27.</td>	52055-271392-3 Gasoline			5000.0000	477.9800	4584.5700	82.1	70.0	130.0	1.9	27.
SAMPLE# ANALYTE CONC FOUND CONC FOUND CONC # LOWER UPPER 126-072799 Gasoline 5537.9700 5000.0000 110.8 75.2 121.4 156-072899-2 Gasoline 5320.8200 5000.0000 101.8 75.2 121.4 156-072899-3 Gasoline 5094.6000 5000.0000 101.9 75.2 121.4 170-072899-4 Gasoline 4857.1800 5000.0000 97.1 75.2 121.4 126-07299 Gasoline 250.0000 225.3100 90.1 85.0 115.0 124-072899-2 Gasoline 250.0000 243.9500 97.6 85.0 115.0 144-072899-3 Gasoline 250.0000 243.9500 97.6 85.0 115.0 144-072899-4 Gasoline 250.0000 241.7400 97.9 85.0 115.0 126-072899-5 Gasoline 250.0000 244.7400 97.9 85.0 115.0 1278-07299-6 Gasoline 250.0000 244.7400 <td></td>											
126-072299 Gasoline 5537.9700 5000.0000 110.8 75.2 121.4 154-07289-2 Gasoline 5320.8200 5000.0000 106.4 75.2 121.4 156-072899-3 Gasoline 5094.0000 5000.0000 106.4 75.2 121.4 170-072899-4 Gasoline 5094.0000 5000.0000 97.1 75.2 121.4 170-072799 Gasoline 250.0000 225.3100 90.1 85.0 115.0 141-072799-2 Gasoline 250.0000 267.7500 107.1 85.0 115.0 144-072899-3 Gasoline 250.0000 263.3000 108.6 85.0 115.0 164-072899-4 Gasoline 250.0000 243.9500 97.6 85.0 115.0 178-072899-5 Gasoline 250.0000 244.7400 97.9 85.0 115.0 SURG #:20-0538 -S-SU 5 5 116 5 5 116 5 SAMPLE 51962-270924 88 96 5 5 116 5 5 5 SAMPLE 51962-27				· · · · · · · · · · · · · · · · · · ·							
154.072899-2 Gasoline 5320.8200 5000.0000 106.4 75.2 121.4 156.072899-3 Gasoline 5094.6000 5000.0000 97.1 75.2 121.4 170.072899-4 Gasoline 4857.1800 5000.0000 97.1 75.2 121.4 (CV # ANALYTE TRUE VALUE BATCH READ X RCC # LOMER UPPER 125.072799 Gasoline 250.0000 267.7500 97.1 85.0 115.0 141.072799-2 Gasoline 250.0000 267.7500 97.6 85.0 115.0 144.072899-3 Gasoline 250.0000 243.9500 97.6 85.0 115.0 164.072899-4 Gasoline 250.0000 271.4500 108.6 85.0 115.0 164.072899-5 Gasoline 250.0000 271.4500 108.6 85.0 115.0 SMPLE 51962-270926 101 127 59.0000 244.7400 97.9 85.0 115.0 SMPLE 51962-270927 78 86 504 504 504 504 504 504 504											
156-072899-3 Gasoline 5094.6000 5000.0000 101.9 75.2 121.4 170-072899-4 Gasoline 250.0000 97.1 75.2 121.4 CCV # ANALYTE CLIMITS 125-072799 Gasoline 250.0000 225.310 90.1 85.0 115.0 141-072799-2 Gasoline 250.0000 263.7500 107.1 85.0 115.0 144-072899-3 Gasoline 250.0000 263.3000 105.3 85.0 115.0 144-072899-6 Gasoline 250.0000 243.9500 97.6 85.0 115.0 164-072899-6 Gasoline 250.0000 244.7400 97.9 85.0 115.0 178-072999-6 Gasoline 250.0000 244.7400 97.9 85.0 115.0 SMPLE 51962-270927 110 127 55.0 101.1 127 SAMPLE 51962-270926 50(11) 59(11) 59(11) 59(11) 59(11) SAMPLE 51962-270927 78 86 55.0 54.5 54.5 55.2											
170-072899-4 Gasoline 4857.1800 5000.0000 97.1 75.2 121.4 OC LIMITS 125-072799 Gasoline 250.0000 225.3100 90.1 85.0 115.0 141-072799-2 Gasoline 250.0000 267.7500 107.1 85.0 115.0 144-072899-3 Gasoline 250.0000 267.7500 107.1 85.0 115.0 164-072899-4 Gasoline 250.0000 267.3000 105.3 85.0 115.0 164-072899-5 Gasoline 250.0000 271.4500 108.6 85.0 115.0 169-072899-6 Gasoline 250.0000 271.4500 108.6 85.0 115.0 178-07299-6 Gasoline 250.0000 271.4500 108.6 85.0 115.0 SURG #:20-0538 -S-SU SAMPLE 51962.270925 105 116 SAMPLE 51962.270925 105 116 SAMPLE 51962.270925 105 116 SAMPLE 51962.270928 92 100 108 SAMPLE 51962.270928 92 100 108 SAMPLE 51962.270928 93 107 SAMPLE 51962.270926 66 86 <											
OC LIMITS CCV # ANALYTE TRUE VALUE BATCH READ # REC # LOWER UPPER 125-072799 Gasoline 250.0000 225.3100 90.1 85.0 115.0 141-072799-2 Gasoline 250.0000 267.7500 107.1 85.0 115.0 144-072899-3 Gasoline 250.0000 263.3000 105.3 85.0 115.0 164-072899-4 Gasoline 250.0000 263.3000 108.6 85.0 115.0 169-072899-5 Gasoline 250.0000 244.7400 97.9 85.0 115.0 178-07299-6 Gasoline 250.0000 244.7400 97.9 85.0 115.0 SURG #:20-0538 -S-SU SAMPLE 51962-270967 73 89											
CCV # ANALYTE TRUE VALUE BATCH READ X REC # LOWER UPPER 125-072799 Gasoline 250.0000 225.3100 90.1 85.0 115.0 141-072799-2 Gasoline 250.0000 243.9500 97.6 85.0 115.0 144-072899-3 Gasoline 250.0000 263.3000 105.3 85.0 115.0 164-072899-4 Gasoline 250.0000 263.3000 105.3 85.0 115.0 169-072899-5 Gasoline 250.0000 244.7400 97.9 85.0 115.0 178-07299-6 Gasoline 250.0000 244.7400 97.9 85.0 115.0 SURG #:20-0538 -S-SU SAMPLE 51962-270927 73 89 SAMPLE 51962-270926 59(L1) 59(L1) SAMPLE 51962-270927 78 86 	170-072899-4 Gasorine			4857.1800	5000.0000	97.1	/5.2 121.4				
CCV # ANALYTE TRUE VALUE BATCH READ X REC # LOWER UPPER 125-072799 Gasoline 250.0000 225.3100 90.1 85.0 115.0 141-072799-2 Gasoline 250.0000 243.9500 97.6 85.0 115.0 144-072899-3 Gasoline 250.0000 263.3000 105.3 85.0 115.0 164-072899-4 Gasoline 250.0000 263.3000 105.3 85.0 115.0 169-072899-5 Gasoline 250.0000 244.7400 97.9 85.0 115.0 178-07299-6 Gasoline 250.0000 244.7400 97.9 85.0 115.0 SMRE 51962-270927 TFT # BFB # 55.0 115.0 SAMPLE 51962-270926 105 116 55.0 115.0 55.0 115.0 SAMPLE 51962-270927 78 86 54.0 55.0 116 55.0 116 55.0 55.0 55.0 55.0 55.0 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>OC LIMITS</td> <td>S</td> <td></td> <td></td> <td></td> <td></td>						OC LIMITS	S				
125.072799 Gasoline 250.0000 225.3100 90.1 85.0 115.0 141.072799-2 Gasoline 250.0000 267.7500 107.1 85.0 115.0 144.072899-3 Gasoline 250.0000 263.3000 97.6 85.0 115.0 144.072899-4 Gasoline 250.0000 263.3000 105.3 85.0 115.0 164.072899-5 Gasoline 250.0000 271.4500 108.6 85.0 115.0 169.072899-6 Gasoline 250.0000 244.7400 97.9 85.0 115.0 178.072999-6 Gasoline 250.0000 244.7400 97.9 85.0 115.0 SMPLE 51962-270930 110 127 89 5 54115.0 SAMPLE 51962-270925 105 116 5 54115.0 54115.0 54115.0 SAMPLE 51962-270926 59(L1) 59(L1) 59(L1) 59(L1) 59(L1) 59(L1) 59(L1) 59(L1) SAMPLE 51962-270928 92 100 108 5562-270929 100 108 5562-270926 <td< td=""><td>CCV # ANALYTE</td><td></td><td></td><td>TRUE VALUE</td><td>BATCH READ</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	CCV # ANALYTE			TRUE VALUE	BATCH READ						
141-072799-2 Gasoline 250.0000 267.7500 107.1 85.0 115.0 144-072899-3 Gasoline 250.0000 243.9500 97.6 85.0 115.0 164-072899-4 Gasoline 250.0000 263.3000 105.3 85.0 115.0 169-072899-5 Gasoline 250.0000 271.4500 108.6 85.0 115.0 178-07299-6 Gasoline 250.0000 244.7400 97.9 85.0 115.0 SMPLE 51968-270967 TFT # BFB # 250.0000 244.7400 97.9 85.0 115.0 SAMPLE 51962-270927 T3 89 6 5.0 115.0 116 SAMPLE 51962-270928 92 100 5.0 10 127 SAMPLE 51962-270928 92 100 5.0 116 5.0 116 SAMPLE 51962-270928 92 100 108 5.0 115.0 116 SAMPLE 51962-270928 89 107 5.0 108.6 85.0 115.0 SAMPLE 51962-270926 86 86 86 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>											
164-072899-4 Gasoline 250.0000 263.3000 105.3 85.0 115.0 169-072899-5 Gasoline 250.0000 271.4500 108.6 85.0 115.0 178-072999-6 Gasoline 250.0000 244.7400 97.9 85.0 115.0 SWRG #:20-0538 - S-SU SAMPLE# TFT # BFB # 89 85.0 115.0 SAMPLE 51968-270967 73 89 89 85.0 115.0 100 SAMPLE 51962-270920 110 127 89 116 105 116 SAMPLE 51962-270925 105 116 105 116 105 116 SAMPLE 51962-270926 59(L1) 59(L1) 59(L1) 59(L1) 59(L1) 50(L1) 50(L1)<	141-072799-2 Gasoline				267.7500						
169-072899-5 Gasoline 250.0000 271.4500 108.6 85.0 115.0 SURG #:20-0538 -S-SU 250.0000 244.7400 97.9 85.0 115.0 SAMPLE#	144-072899-3 Gasoline			250.0000	243.9500	97.6 8	35.0 115.0			. 1	
178-072999-6 Gasoline 250.0000 244.7400 97.9 85.0 115.0 SURG #:20-0538 - S-SU	164-072899-4 Gasoline			250.0000	263.3000	105.3 8	35.0 115.0				
SURG #: 20-0538 - S-SU SAMPLE# TFT # BFB # SAMPLE 51968-270967 73 89 SAMPLE 51962-270930 110 127 SAMPLE 51962-270924 88 96 SAMPLE 51962-270925 105 116 SAMPLE 51962-270926 59(L1) 59(L1) SAMPLE 51962-270926 59(L1) 59(L1) SAMPLE 51962-270927 78 86 SAMPLE 51962-270928 92 100 SAMPLE 51962-270928 92 100 SAMPLE 51962-270928 92 100 SAMPLE 51962-270928 92 100 SAMPLE 51962-270926 86 86 SAMPLE 51962-270926 80 107 SAMPLE 51962-270926 86 86 SAMPLE 51962-270926 0(169-072899-5 Gasoline			250.0000	271.4500	108.6 8	35.0 115.0				
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	SAMPLE 51969-270969	****(D)	1637(D)								



Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting 08/04/99 15:17:40 Group: 51962

est Identification : umber of Samples :		aasutine kange u	ryanics, s	W Units: I	uy/ky	Sequence:	
tch Data-Date/Time :		14:27:18					
						,	
URG #:20-0538 -S-SU AMPLE#	<u> </u>	BFB #					
SAMPLE 52054-271390	<u> </u>	<u> </u>					
SAMPLE 52054-271390	102	132(A)					
SAMPLE 52055-271392	78	99					
SAMPLE 52055-271392	78	98					
SAMPLE 52054-271390	172(D)	184(D)					
SAMPLE 52054-271391	128	147(D)					
SAMPLE 51969-270968	0(D)	673(D)					
BLK 1 127-072799	92	109					
BLK 2 155-072899	143(M)	134(M)					
BLK 3 163-072899	96	107					
BLK 4 171-072899	99	106					
SPK 1 51968-270967	113	115					
SPK 2 52055-271392	118	103					
SPK 3 52055-271392	94	110					
CTL 1 126-072799	95	105					
CTL 2 154-072899	90	108					
CTL 3 156-072899	137(M)	123					
CTL 4 170-072899	96	122					
CCV 1 125-072799	97	105					
CCV 2 141-072799	100	108					
CCV 3 144-072899	98	105					
CCV 4 164-072899	103	106		-			
CCV 5 169-072899	104	103					
CCV 6 178-072999	113	118			-		
MSD 1 51968-270967	109	120					
MSD 2 52055-271392	112	110					
MSD 3 52055-271392	97	106					
20-0538 -S-SU - TPH GR	0 SURROGATES	. SOIL	QC LI	MITS			
SRG ABRV = SURROGATE D			LOWER				
TFT Trifluoroto				130.0			
BFB p-Bromofluo				130.0			

(D1) - Carryover contamination from previous run.

(L1) - Analytical results not used, another run reported.

(D) - Surrogate is diluted out

(A) - Matrix Interference

(M) - QC Sample Was Reanalyzed

Groups & Samples

51908-270698	51962-270923	51962-270924	51962-270925	51962-270926	51962-270927	51962-270928	51962-270929			
51962-270930	51968-270967	51969-270968	51969-270969	52054-271390	52054-271391	52055-271392				

Page

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Page 1	Daily Q	f States Analytical C Batching Data ased for Reporting	~		08/04/99 15:17:41 Group: 51962
Analysis Batch Number: 09 Test Identification : 09 Number of Samples : Batch Data-Date/Time : 09	39G-TPH, Diesel Range Organics 17	Units: ug/kg	Sequence:	TPH1730Q	
BLANK# ANALYTE BLK none deter	CONC FO	UND # LMT OF QUANTI	TATION		
SPIKE				QC LIMITS	5

<u>SAMPLE#</u> 51904-270670	ANALYTE Diesel fuel	CONC ADDED 67000.0000	CONC SAMPLE 0.0000	CONC SPIKE	<u>X REC #</u> 0.0(K1)	LOWER UPPER 70.0 130.0		
		0/000.0000	0.0000	0.0000	0.0((1)			
MSD						QC LIMITS		
<u>SAMPLE#</u>	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	<u> *REC2</u> #	LOWER UPPER F	<u>RPD_</u> #	LIMIT
51904-270670	Diesel fuel	67000.0000	0.0000	0.0000	0.0(K1)	70.0 130.0	0.0	26.1
CONTROL				QC	LIMITS			
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	X REC # LOW	ER UPPER			

67000.0000

92.7

61.2 128.1

62087.0000

SURG #:26-0539 -S-SU	a === #
SAMPLE#	<u> 0-TP # </u>
SAMPLE 51962-270923	2(A)
SAMPLE 51962-270924	3(A)
SAMPLE 51904-270673	89
SAMPLE 51962-270925	0(A)
SAMPLE 51904-270674	0(A)
SAMPLE 51962-270926	1(A)
SAMPLE 51904-270675	0(A)
SAMPLE 51962-270927	89
SAMPLE 51904-270676	79
SAMPLE 51962-270928	4(A)
SAMPLE 51904-270677	77
SAMPLE 51904-270670	4(A)
SAMPLE 51904-270671	4(A)
SAMPLE 51904-270672	10(A)
SAMPLE 51904-270678	0(A)
SAMPLE 51904-270679	1(A)
SAMPLE 51969-270969	0(A)
BLK 1 BLK	73
SPK 1 51904-270670	4(A)
CTL 1 LCS	76
MSD 1 51904-270670	• 4(A)

Diesel fuel

٠.

LCS

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<u>26-0539 -S</u>	-SU - DRO SURROGATE SOIL	QC LI	MITS
$\underline{SRG} ABRV =$	SURROGATE DESCRIPTION	LOWER	UPPER
0-TP	o-Terphenyl	70.0	130.0

------ Result Footnotes ------

(K1) - See comment for explanation

(A) - Matrix Interference

----- Batch Notes -----

Background sample 51904-270670 had a concentration of 1626600 ppb. MS concentration is 2063000 ppb. MSD concentration is 2108600 ppb. Spike recovery is valid because the sample is > four times the spiked amount.



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Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting 08/04/99 15:17:41 Group: 51962

Analysis Batch Number: 0539G-07/23/99-1230-4Test Identification : 0539G-TPH, Diesel Range OrganicsUnits: ug/kgSequence: TPH1730QNumber of Samples : 17Batch Data-Date/Time : 08/03/99 / 10:54:24

Groups & Samples -----51904-270670 51904-270671 51904-270674 51904-270675 51904-270676 51904-270672 51904-270673 51904-270677 51904-270678 51904-270679 51962-270923 51962-270924 51962-270925 51962-270926 51962-270927 51962-270928 51969-270969

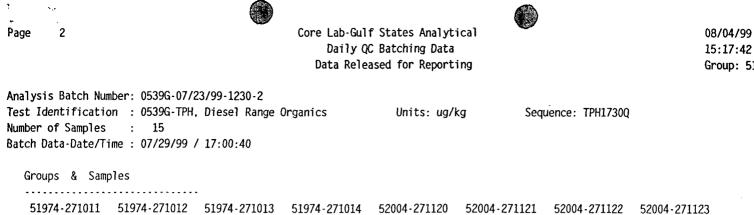
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Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting



Batch Data-Date/Time : 07/29/99 / 17:00:40						
BLANK# ANALYTE	CONC FOUND	<u># LMT OF QU</u>	ANTITATION			
BLK none detected						
		CONC SAMDLE	CONC SPIKE	X REC #	QC LIMITS LOWER UPPER	
SAMPLE# ANALYTE 51974-271008 Diesel fuel	<u>CONC ADDED</u> 67000.0000	CONC SAMPLE 35676.6000	99411.6000	$\frac{1}{95.1}$	70.0 130.0	
J13/4-2/1000 D18301 1001	07000.0000	33070.0000	55411.0000	55.1	/0.0 100.0	
1SD					QC LIMITS	
SAMPLE# ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	XREC2 #		<u>D # LIMI</u>
51974-271009 Diesel fuel	67000.0000	35676.6000	102105.0000	99.1	70.0 130.0	4.1 26
CONTROL				LIMITS		
SAMPLE# ANALYTE	CONC FOUND	CONC KNOWN		ER UPPER		
LCS Diesel fuel	67900.0000	67000.0000	101.3	61.2 128.1		
SURG #:26-0539 -S-SU						
SAMPLE#O-TP #						
SAMPLE 51974-271005 6(A)						
SAMPLE 51974-271006 5(A)						
SAMPLE 51974-271007 44(A)						
SAMPLE 51974-271011 104						
SAMPLE 51974-271012 12(A)						
SAMPLE 51974-271013 22(A)						
SAMPLE 51974-271014 13(A)						
SAMPLE 52004-271123 13(A)						
SAMPLE 52004-271120 68(A)						
SAMPLE 52004-271124 5(A)						
SAMPLE 52004-271121 0(A)						
SAMPLE 51969-270968 0(A)						
SAMPLE 52004-271122 79						- *
SAMPLE 51962-270929 1(A)						
SAMPLE 51962-270930 0(A)						
BLK 1 BLK 75						
SPK 1 51974-271008 91						
CTL 1 LCS 94						
ISD 1 51974-271009 40(A)						
26-0539 -S-SU - DRO SURROGATE SOIL	QC LIMITS					
SRG_ABRV = SURROGATE_DESCRIPTION D-TP o-Terphenyl	LOWER UPPER 70.0 130.0					
J-TP o-Terphenyl	70.0 130.0					
(A) - Matrix Interference						
		-				



52004-271124

15:17:42 Group: 51962

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NUMBER OF KIT		/	GROUP#	ы ву: <u> </u>	#
	. —	KIT	CHECKLIST	-	*
KIT ID	COC PRESENT	CUSTOI PRESENT?	DY TAPE INTACT?	COOLER TEMP Thermometer # 274	# OF SAMPLE CONTAINERS
B/W E.T.S.	Yes	$C \gamma e \varsigma$ $B \Lambda ()$	Yes ND	- 1.3°C	11
		C B		-	
		с			
C = COOLER B	= BOTTLES	B			
SAMPLE	PARAMETI		ONSISTENCIES	CONSISTENCY	
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VOLATILE HEA	SAMPLES CHECK AD SPACE CHEC	KED YES NO AC	SEE ATTACH	ED WORKSHEET	ATION YESNO
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CORE / GSA EM	HCL F	12SO4 NaOH	Na2S2O3	DATE: NEAT Nah	SO4 OT/PRE.
		(Water Only)			# Cont. Mtrx.
-	_VOA _OTHER			OA OTHER	8 20
Remaining Sampl	es in Group	5 6 1997	·		
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	Project M	anager	(V		Total <u>X</u> SD

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NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

CONSERVATION DIVISION DISTRICT I HOBBS PO BOX 1980, Hobbs, NM 88241 (505) 393-6161 FAX (505) 393-0720

Jennifer A. Salisbury CABINET SECRETARY

November 3, 1999

Mr. James Knipe Bristol Resources 6655 South Lewis Suite 200 Tulsa, Oklahoma 74136

Re: South Langley Jal Unit

Dear Mr. Knipe,

New Mexico Oil Conservation Division (NMOCD) is in receipt of Bristol Resources' Phase II Environmental Assessment dated August 23, 1999. NMOCD hereby approves recommendations presented in the Assessment by Cornerstone Environmental Resources for Bristol Resources with the following conditions:

- 1. Bristol Resources shall perform vertical extent at the source of the leak.
- 2. Bristol Resources shall notify the NMOCD at least 48 hours in advance of any scheduled activities such that the NMOCD has the opportunity to witness the events and/or split samples during OCD's normal working hours.
- 3. Bristol Resources shall submit to NMOCD an investigation and remediation plan, included with a plot map of the sample(s) taken and at what depth they were collected.
- 4. Bristol Resources shall provide with the investigation report and/or remediation plan a legal verification of location. (UL Sec T R).

Please submit to NMOCD by December 5, 1999. If you have any questions or require any further information or assistance please do not hesitate to call (505-393-6161 ext...113) or write this office.

Sincerely,

onna 12 Jelians

Donna Williams Environmental Engineer Specialist

cc: Chris Williams, Wayne Price



NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT CONSERVATION DIVISION DISTRICT I HOBBS PO BOX 1980, Hobbs, NM 88241 (505) 393-6161 FAX (505) 393-0720

Jennifer A. Salisbury CABINET SECRETARY

November 2, 1999

Mr. James Knipe Bristol Resources 6655 South Lewis Suite 200 Tulsa, Oaklahoma 74136

Re: Locations around the South Langley Jal Unit UL A, Sec 18, Ts25S, R37E UL O, Sec 18, Ts25S, R37E UL P, Sec 18, Ts25S, R37E

Dear Mr. Knipe,

New Mexico Oil Conservation Division (NMOCD) visited with Bristol's Representative Don Tyler and Bristol's consultant John Alderman with Cornerstone Environmental on July 20, 1999. During the visit it was NMOCD's understanding that Bristol was going to address the above referenced locations. It is also the understanding of the NMOCD that Cornerstone had on that same day taken several samples for analysis. At this time the NMOCD has not received any information concerning these locations. Therefore, the NMOCD hereby requests the following:

- 1. Please submit a site investigation and remediation plan for the above referenced locations.
- 2. Please notify the NMOCD at least 48 hours in advance of the scheduled activities such that the NMOCD has the opportunity to witness the events and/or split samples during OCD's normal working hours.
- 3. Please provide with the investigation and remediation plan a plot map of the samples taken and at what depth samples were collected.
- 4. Please provide with your investigation report and/or remediation plan a legal verification of locations. (UL Sec T R).

Please submit a plan for approval to NMOCD by December 15, 1999. If you have any questions or require any further information or assistance please do not hesitate to call (505-393-6161 ext...113) or write this office.

Sincerely,

Enna Williams

Donna Williams-Environmental Engineer Specialist cc: Chris Williams, Roger Anderson

BRISTOL RESOURCES

Corporation | August 23, 1999

Re:

Oil Conservation Division Attn: Donna Williams 1625 North French Drive Hobbs, New Mexico 88240

6655 South Lewis Suite 200 Tulsa, Oklahoma 74136 (918) 492-7900 FAX (918) 492-7944

So. Langley Jal Lea Co. New Mexico

Dear Ms. Williams:

Enclosed please find one copy of the Phase II environmental assessment dated June 1999 covering the referenced property prepared by Cornerstone Environmental Resources, Inc. for Bristol Resources Corporation.

If additional information is needed please contact me at (918) 492-7900.

Sincerely, ramos U James A. Knipe

Cornerstone Environmental Resources, Inc.

August 18, 1999

Mr. Dan Abney Bristol Resources Corporation 6655 S. Lewis, Suite 200 Tulsa, OK 74136

Re: Abandoned Tank Battery Sites Results of Laboratory Analysis Taken July 20, 1999 South Langley Jal Unit Lea Co. New Mexico

Mobi 915-553-1923 Mobi 741er 4007 -689-4421 FAX -915-689-4421 FAX +0 Send a FAX 4000 - Tyle Send a FAX 4000 - Tyle

Dear Mr. Abney,

I was asked by Don Tyler to go with him and Ms. Donna Williams with the New Mexico Oil & Gas Conservation Division to visit three abandoned tank battery sites in the South Langley Jal Unit. The attached Figures show the location of the South Langley Jal Unit and the approximate location of the three sites visited. On July 20, 1999 we visited the sites and Ms Williams pointed out tests she would like to see run and some locations at the abandoned facilities she would like to see tested. On July 20, 1999, Ms. Connie Smith and I took soil samples at the abandoned facilities for analysis. The purpose of this letter is to document the results of those tests.

Site 1 had two out of service storage tanks with a fence around the tanks. A sign at the facility identified the site as the Winters E Lease Tank Battery. Figure 3 is a Site Map of the facility. A heavy tar material that looked like tank bottoms was located in a depression inside the firewall of the battery. The material appeared to be on the north and east side of battery. A backhoe was used to dig a trench on the east side as shown of Figure 1. Six inches of tar material was seen on the side of the trench closest to the tanks and 3 inches of material on the east side of the trench. The ground was soft and the backhoe created deep ruts where it crossed the material. Because the area was soft, only one trench was dug to prevent enlarging the area impacted by the hydrocarbon material. A soil sample was taken and analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX). None of these materials were detected in the sample. Total petroleum hydrocarbons (TPH) were measured based on analysis of gasoline range organics and diesel range organics. The TPH in the gasoline range were 23.1 mg/kg and in the diesel range were 13,900 mg/kg. A copy of the Core Laboratory report on the analysis is attached.

Site 2 shown on Figure 4 did not have any equipment located on the site. There was a built up area present where the storage tanks would have been located. A hard pan of hydrocarbon material was present on the east side of the location. Three trenches as indicated on Figure 4 were dug with a backhoe. A hard hydrocarbon material was seen at the surface where trenches on the east side were dug. There was a hydrocarbon odor in the trench in the southeast corner. The TPH values measured are shown on Figure 4. There were no BTEX compounds measured in any of the samples. The only gasoline range organics measured was 1.55 mg/kg in the sample from the southeast corner. This was the area where an odor was detected. The diesel range organics ranged from 40.2 mg/kg in the southwest corner to 43440 mg/kg in the northwest corner.

Site 3 appeared to be a former flare pit located to the west of an abandoned tank battery site. Figure 5 is a plot plan showing the location of a pipe from the former tank battery and the location of the samples. Ms. Williams said she would like to have a sample taken from the wall of the pit opposite the pipe and from the bottom of the pit. A sample was also taken from the wall of the pit where the pipe was located. No BTEX nor TPH in the gasoline range was detected in the three samples. A TPH measurement in the heavier organics range was detected in the sample from the east wall and from the center of the pit. The concentration on the east wall was 380 mg/kg and the TPH in the center of the pit was 24;300 mg/kg.

It is our opinion that the material at Site 1 should be removed for treatment or disposal. The material is in a soft semi liquid state which could be problem with live stock when the fence and tanks are removed. We do not believe the material at the other sites offer a threat to environment. We do suggest the hard pan on the east side of Site 2 be broken up and the soil tilled to allow air to contact soil and allow natural bioremediation to occur. The material in the bottom of the pit at Site 3 should be removed from the pit prior to backfilling of the pit. There were no indications of light hydrocarbons in the pit. However bringing the material to the surface prior to backfilling the pit would allow the material to be in contact with the air and permit bioremediation to occur.

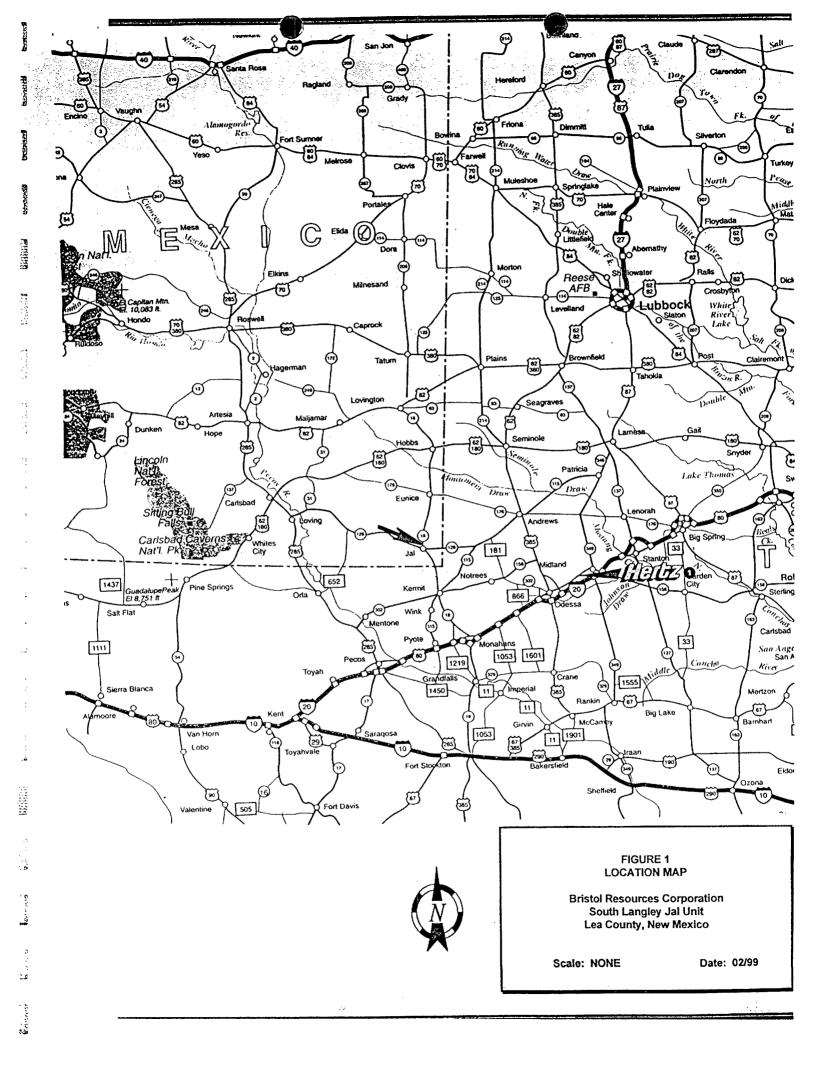
If you have any questions concerning the analysis or the recommendations please do not hesitate to call me at 972-243-7643.

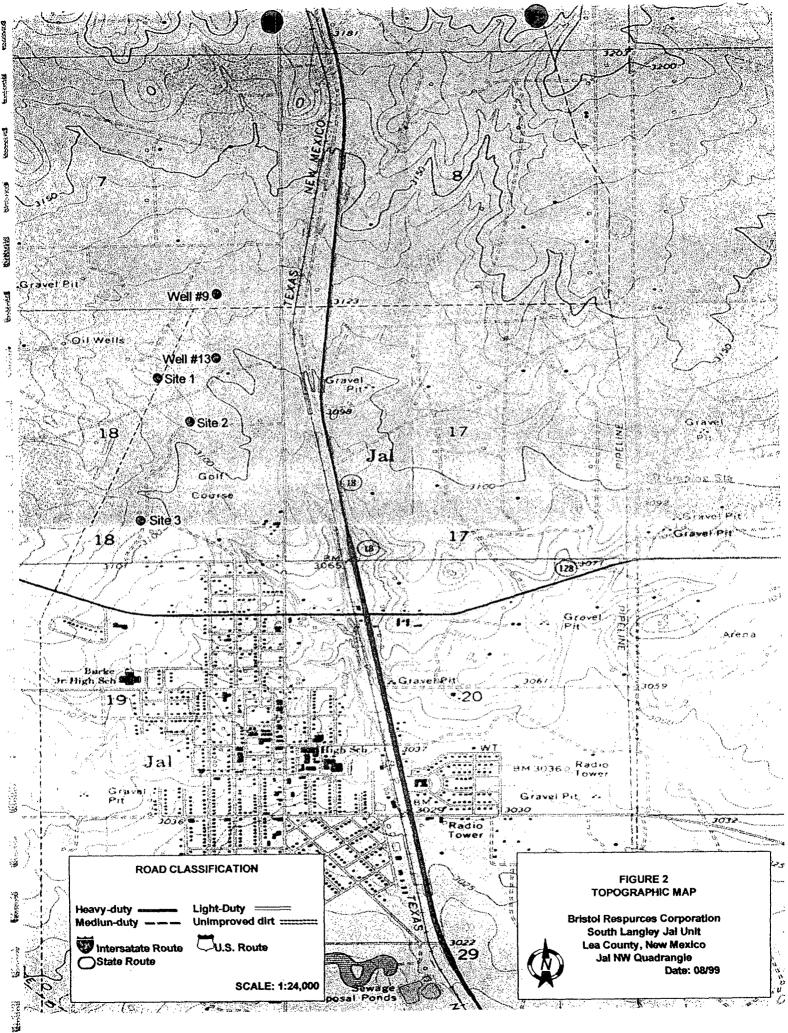
Sincerely, CORNERSTONE ENVIRONMENTAL RESOURCES, INC.

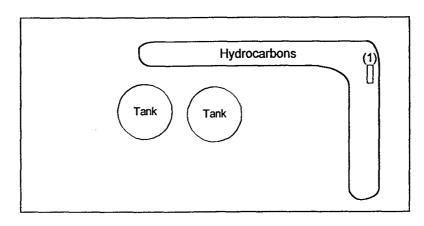
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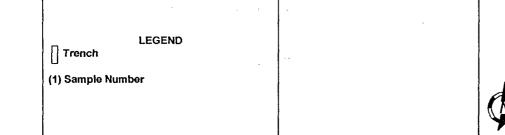
John H. Alderman, P. E. JHA/rnj







(1) TPH 23.1 Mg/Kg Gasoline Range TPH 13,900 Mg/Kg Diesel Range BTEX Non Detected



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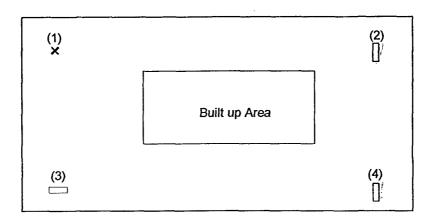
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Bristol Resources Corporation Winters Tank Battery South Langley Jal Unit Jal County, New Mexico

FIGURE 3 SITE MAP

Date: 08/99



- (1) TPH non Detected Gasoline Range(2) TPH Non Detected Gasoline RangeTPH 180 Mg/Kg Diesel RangeTPH 4,440 Mg/Kg Diesel RangeBTEX Non DetectedBTEX Non Detected
- (3) TPH Non Detected Gasoline Range
TPH 40.2 Mg/Kg Diesel Range
BTEX Non DetectedTPH 1.55 Mg/Kg Gasoline Range
TPH 4,160 Mg/Kg Diesel Range
BTEX Non Detected

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50 - 100'

Trench	LEGEND	
(1) Sample Nu	mber	

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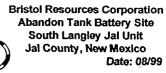
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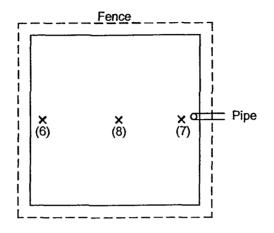
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- (6) TPH Non Detected Gasoline Range TPH Non Detected Diesel Range BTEX Non Detected
 (7) TPH Non Detected Gasoline Range TPH 380 Mg/Kg Diesel Range BTEX Non Detected
- (8) TPH Non Detected Gasoline Range TPH 24,300 Mg/Kg Diesel Range BTEX Non Detected

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FIGURE 5 SITE MAP

Bristol Resources Corporation Abandon Flare Pit Site South Langley Jal Unit Jal County, New Mexico Date: 08/99

South Langley Jal Unit Attachment A

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GULF STATES ANALYTICAL

08/02/99

Mr. John Alderman Cornerstone Environmental 2997 LBJ Frwy., Ste. 103 Dallas, TX 75234

Reference: Project: S.Langley JAL Unit Jal, New Mexico Project No.: 99003 Date Received: 07/22/99 GSA Group: 51962 Group Report Date: 08/02/99

Dear Mr. Alderman:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

Winter 01 :270923Winter 02 :270924Winter 03 :270925Winter 04 :270926Winter 05 :270927Winter 06 :270928Winter 07 :270929Winter 08 :270930

All holding times were met for the tests performed on these samples.

Our A2LA accreditation requires that, should this report be reproduced, it must be reproduced in total.

Enclosed please find the Quality Control Summary. All quality control results for the QC batch that are applicable to this sample(s) are acceptable except as noted in the QC batch reports.

If the report is acceptable, please approve the enclosed invoice and forward it for payment.

Thank you for selecting Core Lab - Gulf States Analytical to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

Sincerely yours,

Ed Fry Project Manager

Enclosure



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GULF STATES ANALYTICAL

ANALYSIS SUMMARY REPORT

2997	nerstone Environmental 7 LBJ Frwy., Ste. 103 las, TX 75234-7606		_	51962 ted: 08/02/1999 ved: 07/22/1999
Attn Proj	n: Mr. John Alderman ject: S.Langley JAL Unit Jal, New	Mexico	Purchase O Project No	rder: 99003 .: 99003
		Results		Limit of
Test A	Analysis	as Received	Units	Quantitation
Sample	:270923 - 07/20/1999 - Winter 01			
. –	IPH, Gasoline Range Organics, SW	23,100	ug/kg	10,000
	Purgeable Aromatics, BTEX Solids		29/19	10,000
	Benzene	ND	ug/kg	20
_	Foluene	ND	ug/kg	20
E	Sthylbenzene	ND	ug/kg	20
्य X	Kylene (total)	ND	ug/kg	60
	CPH, Diesel Range Organics	< 13,900,000	ug/kg	1,660,000
				_,
- Sample:	:270924 - 07/20/1999 - Winter 02			
-	TPH, Gasoline Range Organics, SW	ND	ug/kg	1,000
	Purgeable Aromatics, BTEX Solids	ν.		
В	Benzene	ND	ug/kg	20
Т	Foluene	ND	ug/kg	20
E	Sthylbenzene	ND	ug/kg	20
X	Kylene (total)	ND	ug/kg	60
0539Н Т	TPH, Diesel Range Organics	180,000	ug/kg	33,200
Sample	270925 - 07/20/1999 - Winter 03			
	TPH, Gasoline Range Organics, SW	ND	ug/kg	1,000
	Purgeable Aromatics, BTEX Solids	no	49/149	1,000
	Benzene	ND	ug/kg	20
	Coluene	ND	ug/kg	20
-	Sthylbenzene	ND	ug/kg	20
	Kylene (total)	ND	ug/kg	60
	TPH, Diesel Range Organics	4,440,000	ug/kg	830,000
	270026 07/20/1000 Winter 04			
	270926 - 07/20/1999 - Winter 04	1 660		1 000
਼ੁਰਹਤਰਜ ਸ ਲ 0511 ਸ	PH, Gasoline Range Organics, SW Purgeable Aromatics, BTEX Solids	1,550	ug/kg	1,000
	Benzene	ND	ug/kg	20
	Coluene	ND	ug/kg	20
	Sthylbenzene	ND	ug/kg	20
់ដ	Kylene (total)	ND	ug/kg	60
	TPH, Diesel Range Organics	4,160,000	ug/kg	332,000
	, brobbe hunge organies	1,200,000	441 NA	552,000
- Sample:	270927 - 07/20/1999 - Winter 05			
_		ND	ug/kg	1,000
2				-,
- 				
-	270927 - 07/20/1999 - Winter 05 TPH, Gasoline Range Organics, SW	ND	ug/kg	1,000



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GULF STATES ANALYTICAL

ANALYSIS SUMMARY REPORT

Page 2

Cornerstone Environmental

GSA Group: 51962

Test	Analysis	Results as Received	Units	Limit of Quantitation
_w Sampl	.e:270927 - 07/20/1999 - Winter 05			
§0511E	Purgeable Aromatics, BTEX Solids			
<u>.</u>	Benzene	ND	ug/kg	20
	Toluene	ND	ug/kg	20
an sa	Ethylbenzene	ND	ug/kg	20
;	Xylene (total)	ND	ug/kg	60
0539H	TPH, Diesel Range Organics	40,200	ug/kg	8,300
Sampl	.e:270928 - 07/20/1999 - Winter 06			
	TPH, Gasoline Range Organics, SW	ND	ug/kg	1,000
0511E	Purgeable Aromatics, BTEX Solids			
	Benzene	ND	ug/kg	20
	Toluene	ND	ug/kg	20
	Ethylbenzene	ND	ug/kg	20
	Xylene (total)	ND	ug/kg	60
0539H	TPH, Diesel Range Organics	ND	ug/kg	332,000
Sampl	e:270929 - 07/20/1999 - Winter 07			
-	TPH, Gasoline Range Organics, SW	ND	ug/kg	1.000
	Purgeable Aromatics, BTEX Solids	no	ugring	1,000
	Benzene	ND	ug/kg	20
'n	Toluene	ND	ug/kg	20
	Ethylbenzene	ND	ug/kg	20
	Xylene (total)	ND	ug/kg	60
0539H	TPH, Diesel Range Organics	380,000	ug/kg	166,000
Sampl	e:270930 - 07/20/1999 - Winter 08			
-	TPH, Gasoline Range Organics, SW	ND	ug/kg	1.000
•	Purgeable Aromatics, BTEX Solids			-,
n	Benzene	ND	ug/kg	20
	Toluene	ND	ug/kg	20
	Ethylbenzene	ND	ug/kg	20
133 133	Xylene (total)	ND	ug/kg	60
	TPH, Diesel Range Organics	24,300,000	ug/kg	16,600,000
	-		-	

Test Method Summary:

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GULF STATES ANALYTICAL

	ANALYSIS SUMMARY REPORT		Page 3	
Cornerstone Environmental		GSA Group:	51962	
Test Method Summary: 0511E- SW-846 8021B	0538H- SW-846 8015A MOD	0539H-	SW-846 8015A MOD	

ND - Compound was analyzed but not detected.

Respectfully Submitted, Reviewed and Approved by:

Ed Fry

Core Laboratories, Inc. Project Manager 6310 Rothway, Houston, Texas 77040, (713) 690-4444, Fax (713) 690-5646 B

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Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting

Units: ug/kg



Sequence: BTX171Q

QC LIMITS

Ånalysis Batch Number: 0511E-07/26/99-1205-1

Jest Identification : 0511E-Purgeable Aromatics, BTEX Solids lumber of Samples : 52 Batch Data-Date/Time : 07/29/99 / 12:06:35

3LANK#	ANALYTE	CONC FOUND #	LMT OF QUANTITATION
1-072799	Benzene	8.4349	20.0000
,	Toluene	5.0237	20.0000
	Ethylbenzene	3.0706	20.0000
4-072799-2	m,p-Xylene	3.8907	60.0000
4-072799-2	Benzene	15.0022	20.0000
	m,p-Xylene	4.6481	60.0000
3-072899-3	Benzene	9.0648	20.0000
	Toluene	5.6813	20.0000
	Ethylbenzene	2.4049	20.0000
	m,p-Xylene	3.5115	60.0000
23-072899-4	Benzene	16.5135	20.0000
-19	m,p-Xylene	4.5811	60.0000

SPIKE

- DLIVE						40	111110
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	<u>% REC #</u>	LOWER	UPPER
51968-270967	Benzene	1000.0000	6.9720	907.3886	90.0	70.0	130.0
	Toluene	1000.0000	3.7988	922.4063	91.9	70.0	130.0
	Ethylbenzene	1000.0000	0.0000	941.8681	94.2	70.0	130.0
	o-Xylene	1000.0000	0.0000	945.3803	94.5	70.0	130.0
	m,p-Xylene	2000.0000	0.0000	1830.8220	91.5	70.0	130.0
51968-270967-	2 Benzene	1000.0000	12.7892	985.7218	97.3	70.0	130.0
	Toluene	1000.0000	0.0000	993.5193	99.4	70.0	130.0
	Ethylbenzene	1000.0000	0.0000	1005.8677	100.6	70.0	130.0
	o-Xylene	1000.0000	0.0000	1020.3614	102.0	70.0	130.0
	m,p-Xylene	2000.0000	0.0000	2050.3303	102.5	70.0	130.0
52055-271392-	3 Benzene	1000.0000	10.1425	1043.3696	103.3	70.0	130.0
•	Toluene	1000.0000	4.3305	1057.4746	105.3	70.0	130.0
	Ethylbenzene	1000.0000	3.3005	1042.0484	103.9	70.0	130.0
-	o-Xylene	1000.0000	0.0000	1046.8812	104.7	70.0	130.0
	m,p-Xylene	2000.0000	12.6707	2051.8764	102.0	70.0	130.0
.52055-271392-	4 Benzene	1000.0000	14.2107	1039.9968	102.6	70.0	130.0
	Toluene	1000.0000	31.5203	1038.8227	100.7	70.0	130.0
	Ethylbenzene	1000.0000	0.0000	1028.9471	102.9	70.0	130.0
	o-Xylene	1000.0000	0.0000	1043.3313	104.3	70.0	130.0
Ve	m,p-Xylene	2000.0000	10.4830	2110.3551	105.0	70.0	130.0

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SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	<u>%REC2</u> <u>#</u>	LOWER	UPPER	<u></u>	LIMIT
51968-270967	Benzene	1000.0000	6.9720	904.4729	89.8	70.0	130.0	0.2	20.
	Toluene	1000.0000	3.7988	913.9816	91.0	70.0	130.0	1.0	20.
	Ethylbenzene	1000.0000	0.0000	930.2753	93.0	70.0	130.0	1.3	20.
	o-Xylene	1000.0000	0.0000	937.5446	93.8	70.0	130.0	0.7	20.
	m,p-Xylene	2000.0000	0.0000	1804.4558	90.2	70.0	130.0	1.4	20.
51968-270967-	2 Benzene	1000.0000	12.7892	981.4952	96.9	70.0	130.0	0.4	20.
	Toluene	1000.0000	0.0000	976.0152	97.6	70.0	130.0	1.8	20.
	Ethylbenzene	1000.0000	0.0000	974.0634	97.4	70.0	130.0	3.2	20.
	o-Xylene	1000.0000	0.0000	1003.9410	100.4	70.0	130.0	1.6	20.
	m,p-Xylene	2000.0000	0.0000	1988.8735	99.4	70.0	130.0	3.1	20.
52055-271392-	3 Benzene	1000.0000	10.1425	1010.4656	100.0	70.0	130.0	3.2	20.
	Toluene	1000.0000	4.3305	1013.5478	100.9	70.0	130.0	4.3	20.
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Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting



Sequence: BTX171Q

08/04/99 15:17:35 Group: 51962

Analysis Batch Number: 0511E-07/26/99-1205-1 Test Identification : 0511E-Purgeable Aromatics, BTEX Solids Units: ug/kg Number of Samples : 52 Batch Data-Date/Time : 07/29/99 / 12:06:35

ISD SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT	2 %REC2 #	LOWER	IMITS UPPER	RPD #	LIMIT
	3 Ethylbenzene	1000.0000	3.3005	1003.3			130.0	3.8	20.
		1000.0000	0.0000	1011.8			130.0	3.4	20
2055-271392-	m,p-Xylene	2000.0000	12.6707	1976.1			130.0	3.8	20.
2055-271392-	4 Benzene	1000.0000	14.2107	1007.2			130.0	3.3	20.
2000 272002	Toluene	1000.0000	31.5203	1005.4			130.0	3.3	20.
	Ethylbenzene	1000.0000	0.0000	999.0			130.0	3.0	20.
	o-Xylene	1000.0000	0.0000	1015.3		70.0		2.7	20.
	m,p-Xylene	2000.0000	10.4830	2049.2			130.0	3.0	20.
ONTROL					QC LIMITS				
AMPLE#	ANALYTE	CONC_FOUND	CONC KNOWN	<u>X REC #</u>	LOWER UPPER				
-072799	Benzene	1040.3319	1000.0000	104.0	80.0 120.0				
	Toluene	1044.6987	1000.0000	104.5	80.0 120.0				
	Ethylbenzene	1081.3339	1000.0000	108.1	80.0 120.0				
	o-Xylene	1050.3276	1000.0000	105.0	80.0 120.0				
	m,p-Xylene	2066.6277	2000.0000	103.3	80.0 120.0				
-072799-2	Benzene	1128.1694	1000.0000	112.8	80.0 120.0				
	Toluene	1124.4183	1000.0000	112.4	80.0 120.0				
	Ethylbenzene	1138.6882	1000.0000	113.9	80.0 120.0				
	o-Xylene	1131.9344	1000.0000	113.2	80.0 120.0				
	m,p-Xylene	2288.4581	2000.0000	114.4	80.0 120.0				
2-072899-3	Benzene	940.6866	1000.0000	94.1	80.0 120.0				
	Toluene	935.0686	1000.0000	93.5	80.0 120.0				
	Ethylbenzene	945.7297	1000.0000	94.6	80.0 120.0				
	o-Xylene	937.2726	1000.0000	93.7	80.0 120.0				
	m,p-Xylene	1826.1098	2000.0000	91.3	80.0 120.0				
2-072899-4	Benzene	992.6931	1000.0000	99.3	80.0 120.0				
	Toluene	976.4808	1000.0000	97.6	80.0 120.0				
	Ethylbenzene	981.5185	1000.0000	98.2	80.0 120.0				
	o-Xylene	980.3867	1000.0000	98.0	80.0 120.0				
	m.p-Xylene	1977.3085	2000.0000	98.9	80.0 120.0				
				QC LI					
CV #	ANALYTE	TRUE VALUE	BATCH READ	<u>% REC #</u>	LOWER UPPER				
-072799	Benzene	50.0000	51.0789		85.0 115.0				
-	Toluene	50.0000	51.1487		85.0 115.0				
	Ethylbenzene	50.0000	50.5769		85.0 115.0				
	o-Xylene	50.0000	50.3221		85.0 115.0				
	m,p-Xylene	100.0000	99.8230	99.8	85.0 115.0				
-072799-2	Benzene	50.0000	52.3656		85.0 115.0				
	Toluene	50.0000	51.8274		85.0 115.0				
	Ethylbenzene	50.0000	51.2171		85.0 115.0				
	o-Xylene	50.0000	51.3717		85.0 115.0				
	m,p-Xylene	100.0000	105.1806		85.0 115.0				•
9-072799-3	Benzene	50.0000	48.8261	97.7	85.0 115.0				
5 0121373	Toluene	50.0000	48.3709	97.7 96.7	85.0 115.0				
			48.3709	96.7 95.6					
	Ethylbenzene	50.0000			85.0 115.0				
	o-Xylene m.p.Yylene	50.0000	47.3996	94.8	85.0 115.0				
	m,p-Xylene	100.0000	93.0340	93.0	85.0 115.0				

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Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting



Analysis Batch Number: 0511E-07/26/99-1205-1 Jest Identification : 0511E-Purgeable Aromatics, BTEX Solids lumber of Samples : 52 Batch Data-Date/Time : 07/29/99 / 12:06:35

Units: ug/kg

Sequence: BTX171Q

*				QC	LIMITS
CV #	ANALYTE	TRUE VALUE	BATCH READ	<u>% REC #</u>	LOWER UPPER
19-072799-4	Benzene	50.0000	51.9466	103.9	85.0 115.0
	Toluene	50.0000	51.2490	102.5	85.0 115.0
No.	Ethylbenzene	50.0000	50.5359	101.1	85.0 115.0
3	o-Xylene	50.0000	50.5696	101.1	85.0 115.0
	m,p-Xylene	100.0000	102.9383	102.9	85.0 115.0
ें?1-072899-5	Benzene	50.0000	49.0847	98.2	85.0 115.0
	Toluene	50.0000	48.6601	97.3	85.0 115.0
	Ethylbenzene	50.0000	47.9167	95.8	85.0 115.0
÷	o-Xylene	50.0000	47.8094	95.6	85.0 115.0
: :	m,p-Xylene	100.0000	94.0117	94.0	85.0 115.0
21-072899-6	Benzene	50.0000	51.7661	103.5	85.0 115.0
- ,	Toluene	50.0000	51.1482	102.3	85.0 115.0
	Ethylbenzene	50.0000	50.2417	100.5	85.0 115.0
4	o-Xylene	50.0000	50.6129	101.2	85.0 115.0
	m,p-Xylene	100.0000	102.9864	103.0	85.0 115.0
37-072899-7	Benzene	50.0000	52.4742	104.9	85.0 115.0
	Toluene	50.0000	51.2300	102.5	85.0 115.0
	Ethylbenzene	50.0000	50.1025	100.2	85.0 115.0
	o-Xylene	50.0000	50.0844	100.2	85.0 115.0
	m,p-Xylene	100.0000	98.4022		85.0 115.0
37-072899-8	Benzene	50.0000	51.5299		85.0 115.0
	Toluene	50.0000	50.8117		85.0 115.0
	Ethylbenzene	50.0000	49.6113		85.0 115.0
	o-Xylene	50.0000	49.8436		85.0 115.0
	m,p-Xylene	100.0000	101.3081		85.0 115.0
49-072899-9	Benzene	50.0000	51.8407		85.0 115.0
	Toluene	50.0000	51.6055		85.0 115.0
	Ethylbenzene	50.0000	50.3390		85.0 115.0
.*	o-Xylene	50.0000	50.3692		85.0 115.0
-	m,p-Xylene	100.0000	98.5105		85.0 115.0
49-072899-10	Benzene	50.0000	51.5938		85.0 115.0
	Toluene	50.0000	51.0287		85.0 115.0
а. •	Ethylbenzene	50.0000	51.9997		85.0 115.0
	o-Xylene	50.0000	49.4742		85.0 115.0
50 070000 11	m,p-Xylene	100.0000	101.1983		85.0 115.0
352-072999-11	Benzene	50.0000	51.7143		85.0 115.0
52-072999-11	Toluene	50.0000	50.8827		85.0 115.0
	Ethylbenzene	50.0000	49.7645		85.0 115.0
	o-Xylene	50.0000	50.0194		85.0 115.0
÷	m,p-Xylene	100.0000	97.8686		85.0 115.0
⇒52-072999-12	Benzene	50.0000	50.9003		85.0 115.0
2	Toluene	50.0000	50.1475 49.2196		85.0 115.0
	Ethylbenzene	50.0000			85.0 115.0
نې کې	o-Xylene	50.0000	48.9914 99.9267		85.0 115.0
55-072999-13	m,p-Xylene Ronzono	100.0000 50.0000	49.8246		85.0 115.0 85.0 115.0
	Benzene Tol <i>uene</i>	50.0000	49.8240		85.0 115.0
تُف	Ethylbenzene	50.0000	49.7912		85.0 115.0
	o-Xylene	50.0000	48.8012		85.0 115.0
	o Ayrene	50.000	+0.001Z	57.0	55.0 115.0
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Sequence: BTX171Q

08/04/99 15:17:36 Group: 51962

Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting

Units: ug/kg

Analysis Batch Number: 0511E-07/26/99-1205-1 Test Identification : 0511E-Purgeable Aromatics, BTEX Solids Jumber of Samples : 52

Batch Data-Date/Time : 07/29/99 / 12:06:35

1				QC I	LIMITS
CV #	ANALYTE	TRUE VALUE	BATCH READ	<u>% REC #</u>	LOWER UPPER
55-072999-13	m,p-Xylene	100.0000	95.9838	96.0	85.0 115.0
-55-072999-14	Benzene	50.0000	49.6394	99.3	85.0 115.0
(1997) 1997	Toluene	50.0000	49.2089	98.4	85.0 115.0
3	Ethylbenzene	50.0000	48.2120	96.4	85.0 115.0
	o-Xylene	50.0000	48.0998	96.2	85.0 115.0
Personal Provide State	m,p-Xylene	100.0000	98.2457	98.2	85.0 115.0
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SURG #:21-0511E-S-SU

SAMPLE#	<u>TFT_#_</u>	BFB_#
SAMPLE 51968-270967	70(G)	78
SAMPLE 51968-270967	79	83
SAMPLE 51962-270923	69(G)	73
SAMPLE 51962-270923	79	76
SAMPLE 51962-270924	65(A)	76
SAMPLE 51962-270924	73	76
SAMPLE 51962-270925	92	95
SAMPLE 51962-270925	103	107
SAMPLE 51939-270848	120	140(A)
SAMPLE 51939-270848	122	93
SAMPLE 51939-270849	87	96
SAMPLE 51939-270849	85	97
SAMPLE 51939-270850	95	103
SAMPLE 51939-270850	103	101
SAMPLE 51939-270851	86	94
SAMPLE 51939-270851	98	98
SAMPLE 51939-270852	73	81
SAMPLE 51939-270852	82	84
SAMPLE 51939-270853	84	91
SAMPLE 51939-270853	94	96
SAMPLE 51939-270849	94	98
SAMPLE 51939-270849	105	98
SAMPLE 51939-270848	121	168(D)
SAMPLE 51939-270848	150(D)	106
SAMPLE 51996-271092	87	93
SAMPLE 51996-271092	93	93
ुSAMPLE 52055+271392	84	93
SAMPLE 52055-271392	. 83	91
SAMPLE 51962-270926	51(B1)	53(B1)
_{.5} SAMPLE 51962-270926	55(A)	52(A)
SAMPLE 51962-270927	66(B1)	72
³³ SAMPLE 51962-270927	68(A)	71
SAMPLE 51962-270928	74	86
⁷ SAMPLE 51962-270928	76	85
SAMPLE 51962-270929	82	92
SAMPLE 51962-270929	83	90
SAMPLE 51962-270930	97	108
SAMPLE 51962-270930	98	104
SAMPLE 52054-271390	73	93
SAMPLE 52054-271390	84	88
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Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting



08/04/99 15:17:37 Group: 51962

Analysis Batch Number: 0511E-07/26/99-1205-1 Test Identification : 0511E-Purgeable Aromatics, BTEX Solids Jumber of Samples : 52 Jatch Data-Date/Time : 07/29/99 / 12:06:35

Units: ug/kg

Sequence: BTX171Q

URG #:21-0511E-S-SU		
AMPLE#	TFT #	BFB #
SAMPLE 52054-271391	77	96
SAMPLE 52054-271391	82	90
AMPLE 51962-270926	66(B1)	75
SAMPLE 51962-270926	67(A)	73
SAMPLE 52101-271648	0(D)	2784(D)
AMPLE 52101-271648	0(D)	1455(D)
ÅMPLE 52101-271648	70	1497(D)
SAMPLE 52101-271648	0(D)	1442(D)
SAMPLE 52054-271390	93	105
SAMPLE 52054-271390	93	94
ŚAMPLE 52054-271391	91	104
SAMPLE 52054-271391	87	97
3LK 1 4-072799	83	89
BLK 2 4-072799	93	95
BLK 3 23-072899	92	100
3LK 4 23-072899	100	103
SPK 1 51968-270967	73	83
SPK 2 51968-270967	82	89
SPK 3 52055-271392	90	97
SPK 4 52055-271392	92	97
CTL 1 3-072799	103	107
CTL 2 3-072799	114	115
CTL 3 22-072899	86	92
CTL 4 22-072899	93	95
CCV 1 2-072799	93	91
CCV 2 2-072799	95	93
CCV 3 19-072799	86	88
CCV 4 19-072799	93	93
CCV 5 21-072899	88	89
CCV 6 21-072899	94	93
CCV 7 37-072899	88	91
CCV 8 37-072899	88	90
CCV 9 49-072899	87	89
CCV 10 49-072899	87	89
CCV 11 52-072999	86	89
CCV 12 52-072999	. 85	87
CV 13 55-072999	88	88
CCV 14 55-072999	87	87
MSD 1 51968-270967	71	83
MSD 2 51968-270967	79 00	88
MSD 3 52055-271392	86	94
MSD 4 52055-271392	88	94
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1	Yage 6				Daily Q	f States Analyti C Batching Data ased for Reporti))8/04/99 15:17:38 Group: 519
	Analysis B	atch Num	ber: 0511E-07/2	26/99-1205-1						
	Test Ident Number of			geable Aromatic	s, BTEX Solids	Units: ug/l	kg Sequ	uence: BTX171Q		
)	•	me : 07/29/99 /	/ 12:06:35						
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	<u>SRG ABRV</u> = IFT 3FB (G) - Marg (A) - Matr	SURROGA Trifluc p-Bromo inal Out	lier	DGATE 	70.0 1	<u>PPER</u> 30.0 30.0				
		-		n matrix interfe	erence.					
	Groups	& Samp	les							
13		270848	51939-270849	- 51939-270850	51939-270851	51939-270852	51939-270853	51962-270923	51962-270924	1
ć	51962- 52054-	270925 271390	51962-270926 52054-271391	51962-270927 52055-271392	51962-270928 52101-271648	51962-270929	51962-270930	51968-270967	51996-271092	2
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Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting



i Analysis Batch	Number: 0	538H-07/15/	99-1205-2							
Test Identifica	ation : O	538H-TPH, G		Organics, SW	Units: ug/kg	ı Seqi	uence: GR071	.66Q		
Number of Sampl		22	4.97.10							
Batch Data-Date	e/Inme : U	1//29/99 / 1	4:27:18							
3LANK# A	NALYTE			CONC FOUND	<u># LMT OF QU</u>	JANTITATION				
127-072799	Gasoline			286.5500	1000	0.000				
155-072899-2	Gasoline			584.5900	1000	0.0000				
÷.	Gasoline			1397.9300		0.000				
171-072899-4	Gasoline			654.9700) 1000	0.000				
SPIKE								QC LIMITS		
•	NALYTE			CONC ADDED	CONC SAMPLE	CONC_SPIKE	% REC #	LOWER UPPE	R	
5	Gasoline			5000.0000	545.3600	6240.5600		70.0 130.		
52055-271392-2				5000.0000	1412.9500	18049.0600	332.7(D1)	70.0 130.	0	
52055-271392-3				5000.0000	477.9800	4665.0200	83.7	70.0 130.	0	
MSD								QC LIMITS		
	NALYTE			CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER UPPER	<u></u>	LIM
	Gasoline			5000.0000	545.3600	5820.0800		70.0 130.0		27
-52055-271392-2				5000.0000	1412.9500	10161.8400				
52055-271392-3				5000.0000	477.9800	4584.5700		70.0 130.0		27
CONTROL						Q	C LIMITS			
•	NALYTE			CONC FOUND	CONC KNOWN		WER UPPER			
	Gasoline			5537.9700	5000.0000	$\frac{110.8}{110.8}$	75.2 121.4			
	Gasoline			5320.8200	5000.0000	106.4	75.2 121.4			
•	Gasoline			5094.6000	5000.0000	101.9	75.2 121.4			
	Gasoline			4857.1800	5000.0000	97.1	75.2 121.4			
170-072035-4	dasorme			4037.1000	5000.0000	57.1	75.2 121.4			
oou #						QC LIMIT				
	NALYTE			TRUE VALUE	BATCH READ		WER UPPER			
	Gasoline			250.0000	225.3100		85.0 115.0			
	Gasoline			250.0000	267.7500 243.9500		85.0 115.0			
	Gasoline			250.0000 250.0000	243.9500		85.0 115.0 85.0 115.0			
	Gasoline Gasoline			250.0000	271.4500		85.0 115.0			
	Gasoline			250.0000	244.7400		85.0 115.0			
	6 CH									
SURG #:20-0538 SAMPLE#	-2-20		BFB #							
SAMPLE 51968-27	70967	73	89							
SAMPLE 51962-27	70930	110	127							
SAMPLE 51962-27	70924 -	88	96							
SAMPLE 51962-27		105	116							
SAMPLE 51962-27		59(L1)	59(L1)							
SAMPLE 51962-27		78	86							
SAMPLE 51962-27		92	100							
SAMPLE 51962-27	70929	100	108							
SAMPLE 51962-27		89	107							
SAMPLE 51962-27		86	86							
SAMPLE 51969-27		141(D)	597(D)							
SAMPLE 51969-27		654(D)	427(D)							
SAMPLE 51969-27		0(D)	960(D)							
SAMPLE 51969-27		4234(D)	4270(D)							
SAMPLE 51969-27	70969	****(D)	1637(D)							

page

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SURG #:20-0538 -S-SU



Core Lab-Gulf States Analytical Daily QC Batching Data Data Released for Reporting

Ånalysis Batch Number: 0538H-07/15/99-1205-2 Test Identification : 0538H-TPH, Gasoline Range Organics, SW Number of Samples : 22 atch Data-Date/Time : 07/29/99 / 14:27:18

Units: ug/kg

Sequence: GR07166Q

SAMPL	_E#	ŧ	TFT_#	BFB_#
SAMPL	E	52054-271390	86	137(A)
SAMPL	_E	52054-271391	102	132(A)
		52055-271392	78	99
SAMPL	E	52055-271392	78	98
		52054-271390	172(D)	184(D)
SAMPI	E	52054-271391	128	147(D)
SAMPI	_E	51969-270968	0(D)	673(D)
BLK	1	127-072799	92	109
BLK	2	155-072899	143(M)	134(M)
BLK	3	163-072899	96	107
BLK	4	171-072899	99	106
SPK	1	51968-270967	113	115
SPK	2	52055-271392	118	103
SPK	3	52055-271392	94	110
CTL	1	126-072799	95	105
)CTL	2	154-072899	90	108
CTL	3	156-072899	137(M)	123
CTL	4	170-072899	96	122
CCV	1	125-072799	97	105
CCV	2	141-072799	100	108
CCV	3	144-072899	98	105
CCV	4	164-072899	103	106
CCV	5	169-072899	104	103
CCV	6	178-072999	113	118
MSD	1	51968-270967	109	120
MSD	2	52055-271392	112	110

<u>20-0538</u> -S	-SU - TPH GRO SURROGATES, SOIL	QC LIMITS
<u>SRG</u> ABRV =	SURROGATE DESCRIPTION	LOWER UPPER
TFT	Trifluorotoluene	70.0 130.0
BFB	p-Bromofluorobenzene	70.0 130.0

106

¿······ Result Footnotes ····· (D1) - Carryover contamination from previous run.

 $_{\mathbb{R}}(\text{L1})$ - Analytical results not used, another run reported.

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(D) - Surrogate is diluted out

(A) - Matrix Interference

MSD 3 52055-271392

(M) - QC Sample Was Reanalyzed

Groups & Samples

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51908-270698	51962-270923	51962-270924	51962-270925	51962-270926	51962-270927	51962-270928	51962-270929
51962-270930	51968-270967	51969-270968	51969-270969	52054-271390	52054-271391	52055-271392	

Page 1			tates Analytic atching Data d for Reportin				08/04/99 15:17:41 Group: 5196
Analysis Batch Number: 053 Test Identification : 053 Number of Samples : 1 Batch Data-Date/Time : 08/	9G-TPH, Diesel Range Org 7	anics	Units: ug/kg	sequ	uence: TPH17	30Q	
Daten Data Dater Time : 007	03/33 7 10.34.24						
BLANK# ANALYTE		CONC_FOUND	# LMT OF QU	JANTITATION			
§BLK none detect	ed						
						QC LIMITS	
SPIKE SAMPLE# ANALYTE		CONC ADDED	CONC SAMPLE	CONC SPIKE	<u>% REC #</u>	LOWER UPPER	,
51904-270670 Diesel fuel		67000.0000	0.0000	0.0000	0.0(K1)		-
51504 270070 Dieser laer		0/000.0000	0.0000	0.0000	0.0(11)	70.0 100.0	, ,
MSD						QC LIMITS	
SAMPLE# ANALYTE		CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER UPPER	RPD # LIM
51904-270670 Diesel fuel		67000.0000	0.000	0.0000	0.0(K1)	70.0 130.0	0.0 2
CONTROL					C LIMITS		
SAMPLE# ANALYTE	<u> </u>	CONC FOUND	CONC KNOWN		VER UPPER		
LCS Diesel fuel		62087.0000	67000.0000	92.7	61.2 128.1		
SURG #:26-0539 -S-SU							
	<u>-TP #_</u>						
SAMPLE 51962-270923	2(A)						
SAMPLE 51962-270924	3(A)						
SAMPLE 51904-270673	89						
SAMPLE 51962-270925	0(A)						
SAMPLE 51904-270674	0(A)						
SAMPLE 51962-270926	1(A)						
SAMPLE 51904-270675	0(A)						
SAMPLE 51962-270927	89						
SAMPLE 51904-270676	79						
SAMPLE 51962-270928 SAMPLE 51904-270677	4(A) 77						
SAMPLE 51904-270670	4(A)						
SAMPLE 51904-270670	4(A) 4(A)						
SAMPLE 51904-270672	10(A)						
SAMPLE 51904-270678	0(A)						
SAMPLE 51904-270679	1(A)						
SAMPLE 51969-270969	0(A)						
BLK 1 BLK	73						
SPK 1 51904-270670	4(A)						
CTL 1 LCS	76						
CTL 1 LCS MSD 1 51904-270670	4(A)						
•							
26-0539 - S-SU - DRO SURROG	ATE SOIL	QC LIMITS					
SRG ABRV = SURROGATE DESCR		LOWER UPPE	<u>R</u>				
0-TP o-Terphenyl		70.0 130.					
	Result Footnotes						
(K1) - See comment for exp	lanation						
(A) - Matrix Interference							
	Batch Notes						
Background sample 51904-							
concentration is 2108600	ppb. Spike recovery is	valid because	the sample is	> four times 1	the spiked a	mount.	
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a	 Ige 2			Daily Q	f States Analyt C Batching Data ased for Report				08/04/99 15:17:41 Group: 5196
Ţe ļu	alysis Batch Nu st Identificatio mber of Samples tch Data-Date/T	on : 0539G-TPH : 17	, Diesel Range	Organics	Units: ug/	kg Seq	uence: TPH1730Q		
B EASE AND	Groups & Sam	ples							
52.62.62	51904-270670 51904-270678 51969-270969	51904-270671 51904-270679	51904-270672 51962-270923	51904-270673 51962-270924	51904-270674 51962-270925	51904-270675 51962-270926	51904-270676 51962-270927	51904-27067 51962-27092	
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Page 1			Core Lab-Gulf S	States Analytic	al 🖤	,		08/04/	99
, ugo –				Batching Data				15:17:	42
				ed for Reportin	g			Group:	51962
					-				
Ånalysis Bato	ch Number	: 0539G-07/23/99-1230-2							
		: 0539G-TPH, Diesel Range	Organics	Units: ug/kg	Sequ	ence: TPH1	.730Q		
Number of San		: 15							
Batch Data-Da	ate/Time	: 07/29/99 / 17:00:40							
B									
BLANK#	ANALYTE	·····	CONC FOUND		ANTITATION				
∯ BLK	none a	etected							
SPIKE					-		QC LIMITS		
SAMPLE#	ANALYTE		CONC ADDED	CONC SAMPLE	CONC SPIKE	X REC #	LOWER UPPER		
51974-271008			67000.0000	35676.6000	99411.6000	95.1	70.0 130.0		
SD							QC LIMITS		
SAMPLE#	ANALYTE		CONC ADDED	CONC SAMPLE	RESULT 2	<u> %REC2 #</u>	LOWER UPPER	<u></u>	LIMIT
51974-271009	Diesel	fuel	67000.0000	35676.6000	102105.0000	99.1	70.0 130.0	4.1	26.
7 4 2									
CONTROL						LIMITS			
SAMPLE#	ANALYTE		CONC FOUND	CONC KNOWN		ER UPPER			
LCS	Diesel	fuel	67900.0000	67000.0000	101.3	61.2 128.1	L		
SURG #:26-053	39 -2-20	0 TD #							
SAMPLE# SAMPLE 51974-	271005	<u>0-TP #</u>							
SAMPLE 51974		6(A) 5(A)							
SAMPLE 51974-		44(A)							
SAMPLE 51974		104							
SAMPLE 51974-		104 12(A)							
SAMPLE 51974-		22(A)							
SAMPLE 51974		13(A)							
SAMPLE 52004-		13(A)							
SAMPLE 52004		68(A)							
SAMPLE 52004		5(A)							
SAMPLE 52004		0(A)							
SAMPLE 51969	270968	0(A)							
SAMPLE 52004-	-271122	79							
SAMPLE 51962-	-270929	1(A)							
SAMPLE 51962	270930	0(A)							
BLK 1 BLK		75							
SPK 1 51974-	271008	91							
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26-0539 -S-SL		UDDOCATE COLL	QC LIMITS						
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$\frac{\text{SRG ABRV}}{\text{O-TP}} = \frac{\text{SL}}{\text{O-}}$	Terpheny		LOWER UPPI 70.0 130						
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5TATES ANALYTICAL 6310 Rothway, Houston, Texas 77040 (713) 690-4444, Fax (713) 690-5646	Tele #: 972-243-7643 Fex #: 972-247-0617 Project #:		Project Location:	# of	Conta C Slu W	ainers Other Oil udge Soil Vater	N /	X / X	N / /	X / N	X / / /	× /	X	X X						Special Detection Limits	
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d by: (Sign	Add Company: Secure Frank Frankelin	in Address: 2967185 Fin; 4103	Tele #: <i>マワン、343-7643</i> Fax #: 977-747-047-0717	45	
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Remarks:		Requested Turnaround	Special Detection Limits		QC Package: (check one)
		GSAI Group:			Tier 1 Tier 2 D OC Summary
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			F STATES ANALY CEIPT CHECKLIST	rical John	Alpazman
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PROJECT:	ANGRAM JA	UNAT . JAI , WAR	CARRIER:	FEDEX	
DATE RECEIVED	•		UNPACKED) STAMP:	23 //10:31
DATE SHIPPED:	7-9	1-99	UNPACKE) BY:	3
NUMBER OF KITS	S RECEIVED:		GROUP#	ву: <u></u> 57962 в.0	.#
•			CHECKLIST	· · · · · · · · · · · · · · · · · · ·	· · ·
KIT ID	COC PRESENT	CUSTOR	DY TAPE	COOLER TEMP Thermometer #	# OF SAMPLE CONTAINERS
		PRESENT?	INTACT?	274	CONTAINERS
B/W E.T.S.	Yes	c res	Yes	1.3°C	
E-1. S.		B NO	NO		
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RESOLUTION			······	DATE	
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Remaining Sample	es in Group				
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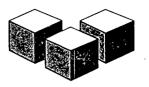
PROVINE STATES

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S.A. 152.07/January 6, 1999

Cornerstone Environmental Resources, Inc.



June 1, 1999

Ms. Donna Williams Oil Conservation Division District 1 Hobbs PO Box 1980 Hobbs, NM 88241

Re: South Langley Jal Unit Lea Co. New Mexico

Dear Ms. Williams,

Please be advised that Cornerstone Environmental Resources, Inc. (CERI) will be conducting the field investigation on June 15 and 16, 1999 at the subject facility to gather data. This data will be utilized to prepare a report in response to your May 13, 1999 letter requesting additional data from the South Langley Jal Unit.

Please contact me at 972-243-7643 if you have questions concerning the upcoming field investigation.

Sincerely, CORNERSTONE ENVIRONMENTAL RESOURCES, INC.

stan John H. Alderman, P. E.

Copy to:

Bristol Resources Mr. James Knipe 6655 South Lewis Suite 200 Tulsa Oklahoma 74136



NEW MEXICO ERRGY, MINERALS & NATURAL RESOURCES DEPARTMENT

CIL CONSERVATION DIVISION STRICT I HOBBS O BOX 1980, Hobbs, NM 88241 (505) 393-6161 FAX (605) 393-0720

Jennifer A. Salisbury CABINET SECRETARY

May 13, 1999

Mr. James Knipe Bristol Resources 6655 South Lewis Suite 200 Tulsa, Oaklahoma 74136

Re: South Langley Jal Unit

Dear Mr. Knipe,

New Mexico Oil Conservation Division (NMOCD) is in receipt of Bristol Resources's Environmental Assessment dated May 1, 1999. Before any determination can be made, NMOCD hereby requests the following:

- 1. Bristol Resources demonstrate that any remaining water contaminant will not impact groundwater or enironment.
- 2. Bristol Resources shall perform Vertical and Horizontal delineation by sampling for BTEX, TPH and Chlorides analysis of the referenced location above.

Please submit to NMOCD by July 13, 1999. If you have any questions or require any further information or assistance please do not hesitate to call (505-393-6161 ext...113) or write this office.

Sincerely,

JAMES

Donna Williams-Environmental Engineer

Cc: Chris Williams, Wayne Price

BRISTOL RESOURCES

Corporation

May 1, 1999

Re:

Oil Conservation Division Attn: Donna Williams 1625 North French Drive Hobbs, New Mexico 88240

6655 South Lewis Suite 200 Tulsa, Oklahoma 74136 (918) 492-7900 FAX (918) 492-7944

South Langley Jal Unit Lea Co. New Mexico

Dear Ms. Williams:

Enclosed please find one copy of the Phase II environmental report prepared by Cornerstone Environmental Resources, Inc. for Bristol Resources on the referenced property for your files.

If additional information is needed please contact John Alderman at Cornerstone Environmental or myself at (918) 492-7900.

Sincerely, tanus l James A. Knipe

Copy: Cornerstone-John Alderman