



**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1888 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505) 334-6170

GARY E. JOHNSON
GOVERNOR

June 5, 1997

JENNIFER A. SALISBURY
CABINET SECRETARY

ABANDONED LOCATION
EXPIRATION NOTICE ON PERMIT TO DRILL

SG INTEREST I LTD
P O BOX 338
IGNACIO CO 81137

RE: W Bisti State 26-13-16 #1 A-16-26N-13W
30-045-29260

Gentlemen:

The permit to drill the referenced well has expired. Should you wish to drill this well in the future, you will have to submit a new application.

Sincerely,

Frank T. Chavez
District Supervisor

FTC\dj

xc: Well File
Santa Fe

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-101
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address. SG Interests I LTD. P.O. Box 338 Ignacio, Colorado 81137		RECEIVED MAY 24 1995 OIL CON. DIV. DIST. 3	OGRID Number 020572
Property Code 17203	Property Name West Bisti State 26-13-16		API Number 30-045-24260
		Well No. 1	

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
A	16	26N	13W		800	North	800	East	San Juan

8 Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
Same as Surface Location									

Swop: Mesa Verde	Proposed Pool 1 <i>no acreage</i>	Proposed Pool 2 <i>See note at the bottom of the Pictured Cliffs page</i>
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Work Type Code N	Well Type Code I	Cable/Rotary Rotary	Lease Type Code S	Ground Level Elevation 6223'
Multiple No	Proposed Depth 4200'	Formation Mesa Verde	Contractor L&B Speed Drill	Spud Date June '95

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 1/4"	9 5/8"	36	250'	160	Surface
7 7/8"	7"	26	4200'	620	Surface

Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

SG Interests, proposes to drill a new well to dispose of Fruitland produced water in the Mesa Verde formation. In the event marginal injection rates are obtained in the Mesa Verde, the well will be recompleted to the Pictured Cliffs sands. An application for Authorization to Inject (Form C108) has also been filed with the OCD.

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Printed name:

Dennis R. Reimers

Title:

Agent/Engineering Manager

Date:

4/16/95

Phone:

(303) 563-4000

OIL CONSERVATION DIVISION

Approved by:

Title:

DEPUTY OIL & GAS INSPECTOR, DIST. #3

Approval Date:

JUN 20 1995

Expiration Date:

JUN 20 1996

Conditions of Approval:

Attached ☐

The App. is not approved for the PC SWD-594

☐ AMENDED REPORT

IF THIS IS AN AMENDED REPORT, CHECK THE BOX LABELED "AMENDED REPORT" AT THE TOP OF THIS DOCUMENT.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed contact the appropriate OCD district office. Independent subdivision surveys will not be acceptable.

distance to the edge of the tract.) If this is a high angle or horizontal hole show that portion of the well bore that is open within this pool.

Show all lots, lot numbers, and their respective acreage.

If more than one lease has been dedicated to this completion, outline each one and identify the ownership as to both working interest and royalty.

1. The OCD assigned API number for this well
2. The pool code for this (proposed) completion
3. The pool name for this (proposed) completion
4. The property code for this (proposed) completion
5. The property name (well name) for this (proposed) completion
6. The well number for this (proposed) completion
7. Operator's OGRID number
8. The operator's name
9. The ground level elevation of this well
10. The surveyed surface location of this well measured from the section lines **NOTE: If the United States government survey designates a Lot Number for this location use that number in the 'UL or lot no.' box. Otherwise use the OCD unit letter.**
11. Proposed bottom hole location. If this is a horizontal hole indicate the location of the end of the hole.
12. The calculated acreage dedicated to this completion to the nearest hundredth of an acre
13. Put a Y if more than one completion will be sharing this same acreage or N if this is the only completion on this acreage
14. If more than one lease of different ownership has been dedicated to the well show the consolidation code from the following table:

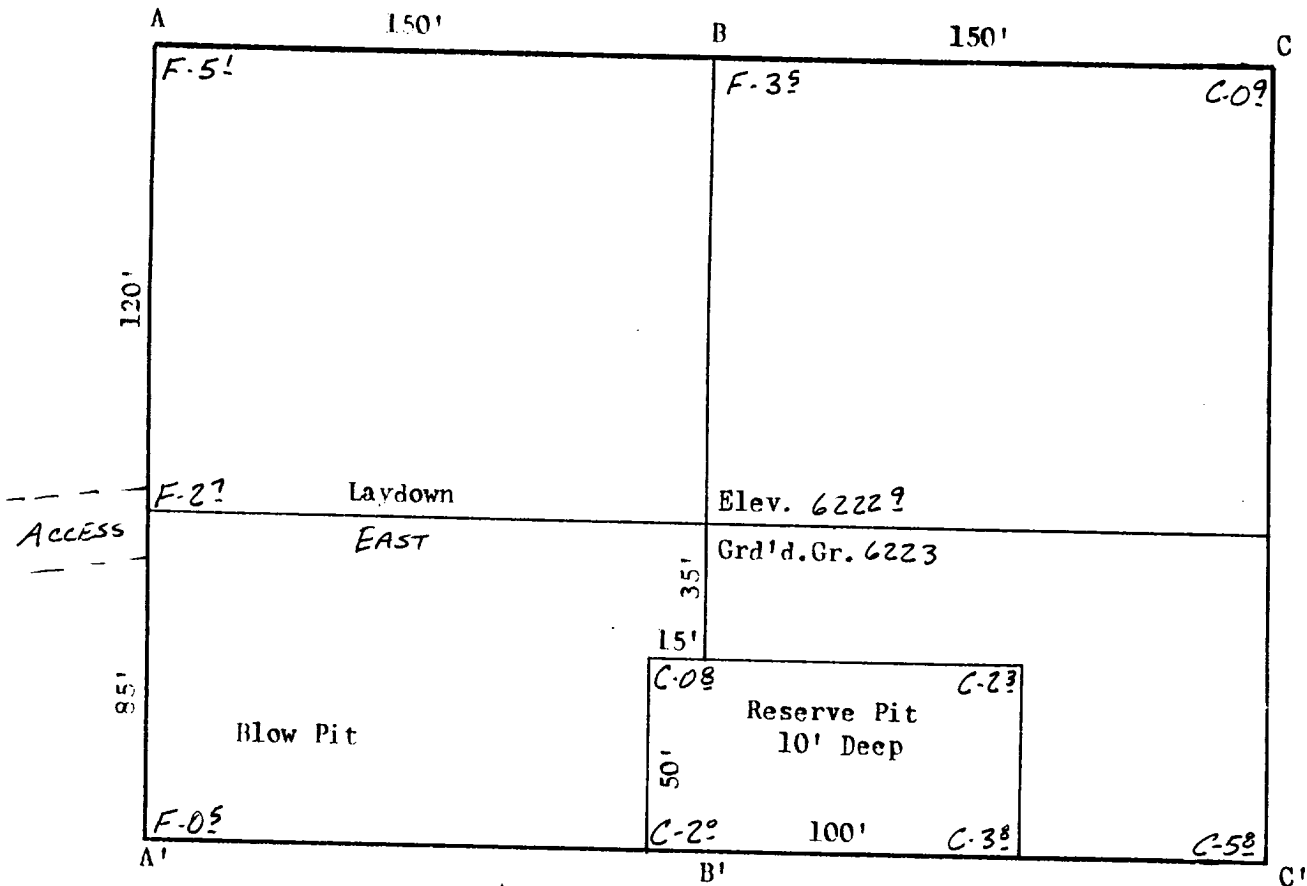
C	Communitization
U	Unitization
F	Forced pooling
O	Other
P	Consolidation pending
17. The signature, printed name, and title of the person authorized to make this report, and the date this document was signed.
18. The registered surveyors certification. This section does not have to be completed if this form has been previously accepted by the OCD and is being filed for a change of pool or dedicated acreage.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION!

15. Write in the OCD order(s) approving a non-standard location, non-standard spacing, or directional or horizontal drilling
16. This grid represents a standard section. You may superimpose a non-standard section over this grid. Outline the dedicated acreage and the separate leases within that dedicated acreage. Show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. (Note: A legal location is determined from the perpendicular

SG Interest

STATE
WEST BISTI/26-13-16 #1 WATER DISPOSAL
800' FNL & 800' FEL
Sec. 16, T26N, R13W, N.M.P.M.
San Juan Co., NM



Scale: 1"=50'

Vert.: 1"=30' Horiz.: 1"=100'

A-A' C/L

6230						
6220						

B-B'

6230						
6220						

C-C'

6230						
6220						

SG INTERESTS I LTD
WEST BISTI 26-13-16#1 W.D.
800'FNL & 800'FEL
S-c.16, T26N, R13W, N.M.P.M.
San Juan Co., NM

Ernie Busch

From: Ernie Busch
To: David Catanach
Cc: Ben Stone
Subject: RE: SG INTERESTS (SWD)
Date: Friday, June 09, 1995 9:26AM
Priority: High

IN ADDITION TO THE RECOMMENDATION I SENT TO YOU TWO DAYS AGO, I WOULD LIKE TO ADD THE NEED TO SPECIFY THAT THE PACKER BE SET WITHIN 100' OF THE TOP PERF. WE HAD A PROBLEM WITH ONE OTHER WELL WHERE THE OPERATOR WAS NOT INSTRUCTED TO DO THAT AND I THINK THAT IF WE COULD PUT IT IN THE ORDER IT WOULD ELIMINATE ANY MISUNDERSTANDINGS.

From: Ernie Busch
To: David Catanach
Cc: Ben Stone
Subject: SG INTERESTS (SWD)
Date: Wednesday, June 07, 1995 9:20AM
Priority: High

WEST BISTI WATER DISPOSAL 26-13-16 #1
A-16-26N-13W

RECOMMEND: APPROVAL OF THE MESAVERDE FOR PRODUCED WATER DISPOSAL, BUT
NOT THE PICTURED CLIFFS. THE PICTURED CLIFFS HAS PRODUCTION POTENTIAL
IN THIS AREA.

P.O. Box 1980, Hobbs, NM 88241-1980
District II
P.O. Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos, Aztec, NM 84710

Form C-111
Instructions on reverse side
Revised December 7, 1993

1 ☐ Amended Report
2 ☐ Gas Transporter
3 ☐ Gas Plant

GAS TRANSPORTER'S AND FACILITY MONTHLY REPORT

4 Operator	MERRION OIL & GAS CORP.	5 OGRID	014634
6 Address:	P. O. Box 840, Farmington, NM 87499	7 Month/Year	4/95
8 Facility Name and ID number		9 Page 1 of 1	

Gas Receipts			
10 Received From	11 OGRID	12 POD	13 Volume
MERRION Southland 1	014634	1916930	389
MERRION Southland 2Y	014634	1917030	0
MERRION Southland 3	014634	1917130	156
MERRION Southland 6	014634	1917230	700
MERRION Southland 7	014634	1917330	311

Gas Disposition	
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[illegible]

19 Code	20 Occurrence	21 Period	22 Location	Plant Liquids
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[illegible]

I hereby certify that the information contained in this report is true and complete to the best of my knowledge and belief.

Esther J. Greyeyes - Drig & Prod Tech

Date _____

Phone Number

Signature

327-9801

R

Ernie Busch

From: Ernie Busch
To: David Catanach
Cc: Ben Stone
Subject: SG INTERESTS (SWD)
Date: Wednesday, June 07, 1995 9:20AM
Priority: High

WEST BISTI WATER DISPOSAL 26-13-16 #1

A-16-26N-13W

RECOMMEND: APPROVAL OF THE MESAVERDE FOR PRODUCED WATER DISPOSAL, BUT
NOT THE PICTURED CLIFFS. THE PICTURED CLIFFS HAS PRODUCTION POTENTIAL
IN THIS AREA.

SCIENTIFIC DRILLING INTERNATIONAL INC.

Page 2 of 2

Date 8/27/1994

Filename : SIRGO48S

No Interpolation

Client : SIRGO BROTHERS ENERGY CORPORATION
Well Name : CHA CHA UNIT #48
Location : SAN JUAN COUNTY, NEW MEXICO
SHT : SEC.27,T29N,R14W - 2067'FNL - 1394'FWL
PBHL : SEC.27,T29N,R14W - 1985'FNL - 672'FWL
ACTUAL BHL : SEC.27,T29N,R14W - 2006'FNL - 950'FWL
Height of WELLSITE Datum Above Field Datum 0.00 ft

Origin of Bottom Hole Closure WELLSITE CENTRE
Bottom Hole Closure 448 ft NS2.21°W

COMPLETION REPORT

NOTE: SURVEY DEPTH AT 5465' MD IS A PROJECTION TO TD



APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage
Application qualifies for administrative approval? Yes No
- II. OPERATOR: SG Interests
ADDRESS: P. O. Box 338 Ignacio, Colorado 81137
CONTACT PARTY: Dennis R. Reimers PHONE: (303) 563-4000
- III. WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project: Yes X No
If yes, give the Division order number authorizing the project _____
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Dennis R. Reimers TITLE: Engineering Manager / Agent
SIGNATURE: Dennis R. Reimers DATE: May 16, 1995
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal. N/A

**SG INTERESTS
PROPOSED WEST BISTI
PRODUCED WATER DISPOSAL WELL**

Well Data

(As Related to Section III of the OCD Application Form)

1. Lease : State Lease (mineral rights currently not leased)

Well No.: West Bisti Water Disposal 26-13-16 #1

Locaton: 800' FNL, 800' FEL of S16-T26N-R13W

2. Casing and Cementing Specifications

<u>Depth</u>	<u>Hole Size</u>	<u>Casing & Weight</u>	<u>Cement Prog.</u>
0-250'	12 1/4"	9 5/8" 36 lb/ft	157 ft ³ (100% excess) Class B yield=1.3 ft ³ /sx*
250-4200'	8 3/4"	7" 26 lb/ft	807 ft ³ (20% excess) Class B yield=1.3 ft ³ /sx*

- * Due to cement yield variations the actual yield will be measured on the cement pumped. The cement volume will be calculated from the open hole caliper log with 20% excess applied.

3. New 3 1/2" 9.5 lb/ft of internally coated tubing will be used as the injection string.
4. An injection packer will be set just above the top of the Mesa Verde Sands at a depth of approximately 3200'.

Proposed Operation:

(As Related to Section VII of the OCD Application Form)

1. The well will be drilled and completed to the Mesa Verde sands to dispose of produced water from SG Interests wells that are currently dewatering from the Fruitland coal seam. The volume of water to be injected is approximately 1500 BWPD

SG Interests
Proposed West Bisti
Produced Water Disposal Well

which will decline as the wells are dewatered. In two to three years the water production from wells initially tied in to this disposal well will be a minimum volume (less than 500 BWPD). The well will most likely be used to dispose of coal seam water from additional Fruitland wells that may be drilled in this area. In the event the Mesa Verde sands are not sufficiently permeable for water disposal, the Pictured Cliff sands will be open and injected into. Both the Mesa Verde and Pictured Cliffs are non hydrocarbon bearing in this area.

2. The disposal system will be completely enclosed. Water from each producing well will be pumped through a pipeline to the proposed disposal site, where it will be filtered before it is disposed of in the injection well. Produced water from some of the further extensions wells will be trucked to the disposal site.
3. A step rate injectivity test will be conducted on the new disposal well to determine the maximum injection pressure the water can be injected and be kept below the fracture gradient of the Mesa Verde. Typical wells in this area have seen a fracture gradient of approximately 0.64 psi/ft. At a projected depth of 4200 ft. this will result in a maximum injection pressure of approximately 880 psi. The average injection pressure should be lower than this but will be a function of the porosity and permeability present in the Mesa Verde formation. In the event the Pictured Cliffs formation is used as the disposal interval the maximum pressure will be kept below the fracture gradient. Work in this area has shown that at the shallower depths the frac gradient shows a large increase. Step rate tests have shown gradients averaging 1.5 psi/ft at the shallower depths. The actual fracture gradient will be measured and used as the basis for establishing the maximum injection pressure into the Pictured Cliffs formation.
4. Water analysis are included with the application showing the Fruitland coal seam water quality. There are no known compatibility issues associated with the mixing of coal seam water with the Mesa Verde or Pictured Cliffs formation waters.

SG Interests
Proposed West Bisti
Produced Water Disposal Well

5. In the area of investigation there are no available Mesa Verde or Pictured Cliffs water samples. Offsetting this area both of these intervals have proven to be non hydrocarbon productive. No known compatability problems are evidenced between the Fruitland produced water and native waters from the Mesa Verde and the Picture Cliffs.

Geological Description - Picture Cliffs Formation:
(As Related to Section VIII of the OCD Application Form)

The proposed target interval for disposing of the produced water is the Mesa Verde sands. The formations in this area with their estimated tops are as follows: (Depths are measured from ground level to the top of each formation) Est. ground level = 6230'.

Kirtland	260'
Fruitland	960'
Pictured Cliffs	1350'
Mesa Verde Sands	2100'
Total Depth	4200'

As the attached map shows there are a number of wells drilled in the immediate vicinity but not within a half mile radius of the proposed well. The Mesa Verde and Picture Cliff sands have not been hydrocarbon productive in this area. The completions have all been abandoned as unproductive wells. With these offsets there is very good geological control on determining the depth and producing capability of these formations. Even though the plugged and abandoned wells illustrate the unproductiveness of this area, the proposed injection well will be tested in the disposal interval before water injection is initiated. This will consist of perforating the well and swabbing it to recover the native fluids. The uniform clean sandstones will provide a good isolated permeable interval for water disposal. There are no wells in the project area supplying underground drinking water. Very shallow sands within the Ojo Alamo or top of the Kirtland (100 to 300') are possibly intervals containing fresh water.

SG Interests
Proposed West Bisti
Produced Water Disposal Well

Proposed Stimulation Program:

(As Related to Section IX of the OCD Application Form)

After the well is drilled and cased through the Mesa Verde sands, perforations will be picked from open hole logs. The perforations will be broken down with acid, before the interval is hydraulically fractured. Good formation barriers exist both above and below the Mesa Verde sands to contain the fracture treatment. The frac will be designed to place approximately 250,000 lbs of proppant. The induced fracture will allow water to be disposed into the Mesa Verde sands under matrix pressures.

Logging and Testing Program:

(As Related to Section X of the OCD Application Form)

The openhole logging program will consist of a porosity log (FDC/CNL) and a microresistivity log. Both of these logs will include a gamma ray log. After the well is cased and cemented a cement bond log will be obtained from PBTD to surface. In the event a poor cement bond is observed, or cement was not adequately circulated behind pipe, remedial cement work will be initiated according to OCD approved procedures. All open and cased hole logs will be submitted to the OCD.

After the well has been perforated in the Mesa Verde, the well will be produced to ensure there is no commercial productivity. This test will include swabbing of the perforations in an attempt to establish flow from this interval. As previously mentioned, the Mesa Verde and Picture Cliffs formations have not been productive in the wells in this area.

Potential Fresh Water Zones

(As Related to Section XI of the OCD Application Form)

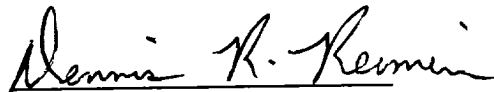
There are no fresh water wells within a one mile radius of the proposed disposal well.

SG Interests
Proposed West Bisti
Produced Water Disposal Well

Affirmative Statement

(As Related to Section XII of the OCD Application Form)

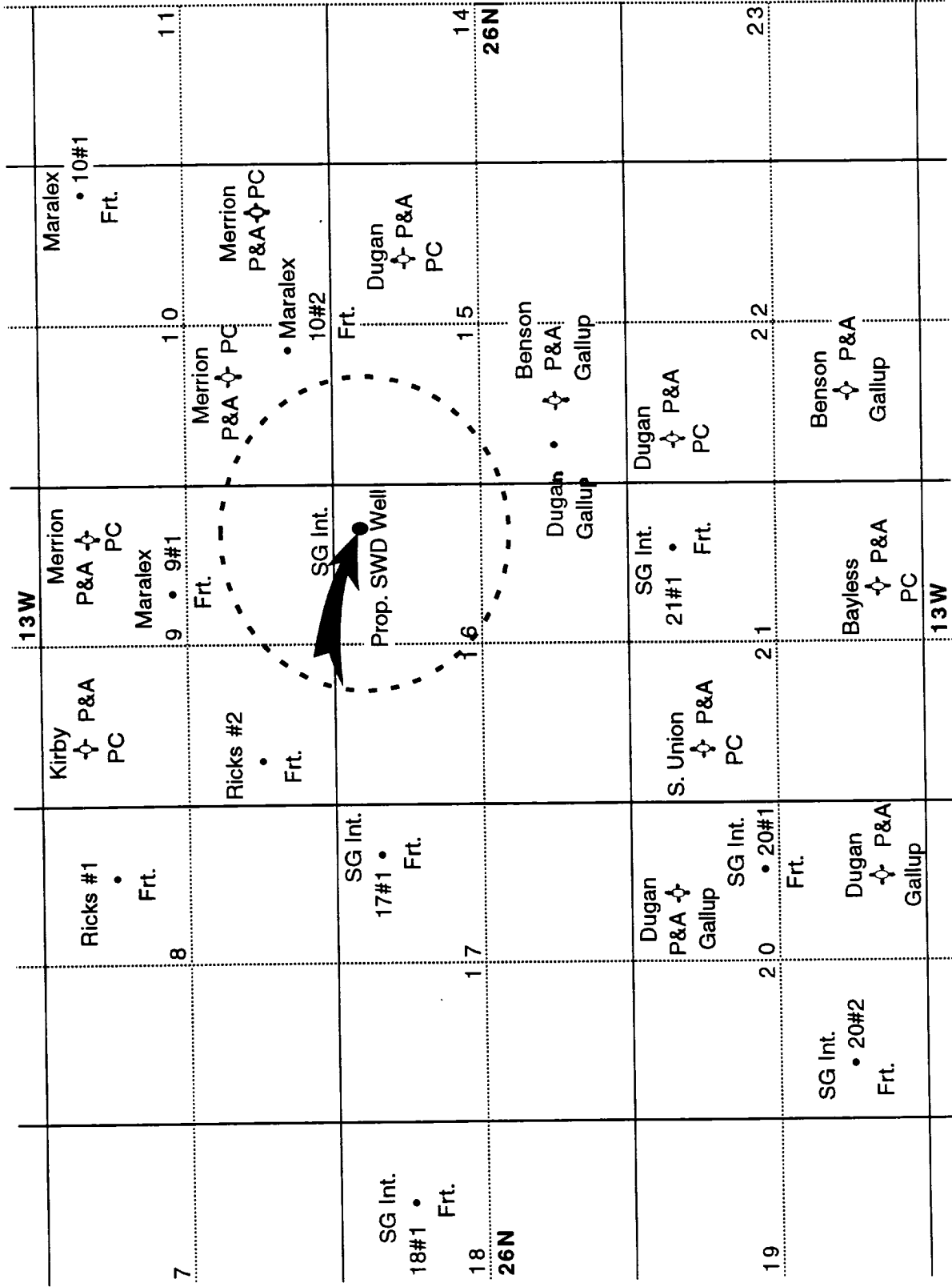
Certification: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route: that I am familiar with the conditions which currently exist; that the statements made in the application are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by SG Interests, and its contractors and subcontractors in conformity with this application and the terms and conditions under which it is approved.



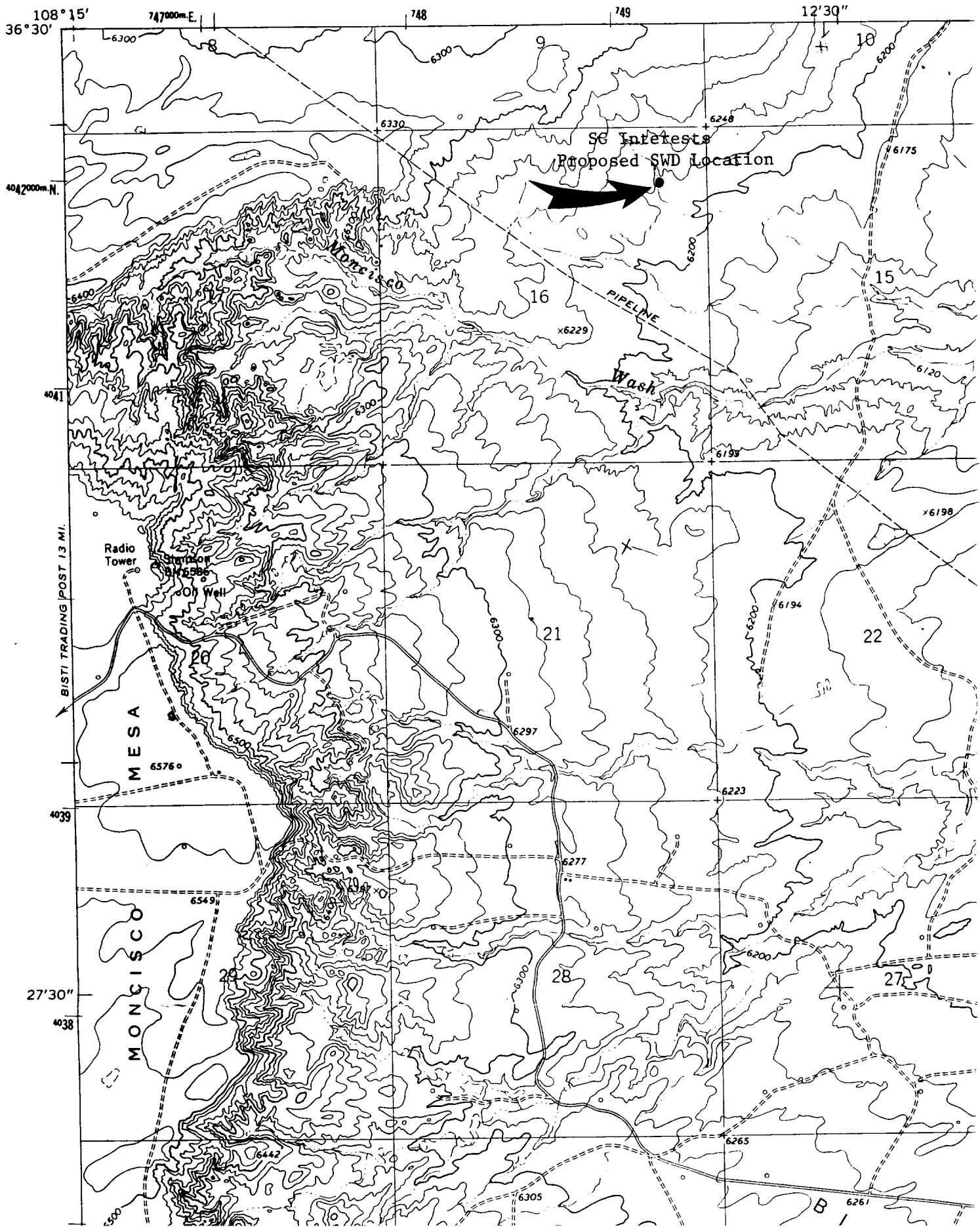
Dennis R. Reimers
Authorized Agent for
SG Interests, Inc.

March 7, 1995
Date

SG INTERSTS WEST BISTI DISPOSAL WELL



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



Post-It™ brand fax transmittal memo 7671		# of pages > <u>6</u>
To <u>MARLEX</u>	From <u>LAB</u>	
Co.	Co. <u>Halliburton</u>	
Dept.	Phone #	
Fax #	Fax #	

ENERGY SERVICES
LABORATORY
TERN AREA
DRY ANALYSIS

To: S & G

Date: 06-16-94

MARLEX

Submitted by: _____ Date Rec. 06-15-94

Well No. GALLEGOS FED 26-11-17 #1 Location: _____

Sample Markings WATER TANK

Specific Gravity	<u>1.020</u>		
pH	<u>7.27</u>		
Resistivity	<u>.293 @ 75°</u>		
Iron (Fe)	<u>2</u>	Milligrams per Liter	
Potassium (K)	<u>250</u>	"	"
Sodium (Na)	<u>10322</u>	"	"
Calcium (Ca)	<u>1104</u>	"	"
Magnesium (Mg)	<u>526</u>	"	"
Chlorides (Cl)	<u>19027</u>	"	"
Sulfates (SO ₄)	<u>0</u>	"	"
Carbonates (CO ₃)	<u>0</u>	"	"
Bicarbonates (HCO ₃)	<u>1068</u>	"	"
Total Dissolved Solids	<u>32299</u>	"	"

By TERESA WHITE

Title LAB TECH

Location FARMINGTON

NOTICE:

This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.

HALLIBURTON ENERGY SERVICES
FIELD LABORATORY
WESTERN AREA

LABORATORY ANALYSIS

To: S & G

Date: 06-16-94

MARLEX

Submitted by: _____

Date Rec. 06-15-94

Well No. GALLEGOS FED 26-12-07 #1

Location: _____

Sample Markings WELL HEAD

Specific Gravity 1.010

pH 7.09

Resistivity .416 @ 75°

Iron(Fe) <10

Milligrams per Liter

Potassium(K) 250

" "

Sodium(Na) 4798

" "

Calcium(Ca) 597

" "

Magnesium(Mg) 363

" "

Chlorides(Cl) 9213

" "

Sulfates(SO₄) 0

" "

Carbonates(CO₃) 0

" "

Bicarbonates(HCO₃) 915

" "

Total Dissolved Solids 16136

" "

By TERESA WHITE

Title LAB TECH

Location FARMINGTON

NOTICE:

This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.

HALLIBURTON ENERGY SERVICES
FIELD LABORATORY
WESTERN AREA

LABORATORY ANALYSIS

To: S & G

Date: 06-16-94

MARLEX

Submitted by: _____

Date Rec. 06-15-94

Well No. GALLEGOS FED 26-12-06 #2

Location: _____

Sample Markings WELL HEAD

Specific Gravity 1.010

pH 7.25

Resisitivity .505 @ 75°

Iron(Fe) <10

Milligrams per Liter

Potassium(K) 250

" "

Sodium(Na) 4974

" "

Calcium(Ca) 537

" "

Magnesium(Mg) 581

" "

Chlorides(Cl) 10014

" "

Sulfates(SO₄) 0

" "

Carbonates(CO₃) 0

" "

Bicarbonates(HCO₃) 915

" "

Total Dissolved Solids 17271

" "

By TERESA WHITE

Title LAB TECH

Location FARMINGTON

NOTICE:

This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.

HALLIBURTON ENERGY SERVICES
FIELD LABORATORY
WESTERN AREA

LABORATORY ANALYSIS

To: S & G

Date: 06-16-94

MARLEX

Submitted by: _____

Date Rec. 06-15-94

Well No. GALLEGOS FED 26-12-31 #1 Location: _____

Sample Markings WELL HEAD

Specific Gravity	<u>1.010</u>		
pH	<u>6.92</u>		
Resisitvity	<u>.505 @ 75°</u>		
Iron(Fe)	<u>3</u>	Milligrams per Liter	
Potassium(K)	<u>250</u>	"	"
Sodium(Na)	<u>2046</u>	"	"
Calcium(Ca)	<u>1075</u>	"	"
Magnesium(Mg)	<u>581</u>	"	"
Chlorides(Cl)	<u>6008</u>	"	"
Sulfates(SO ₄)	<u>0</u>	"	"
Carbonates(CO ₃)	<u>0</u>	"	"
Bicarbonates(HCO ₃)	<u>1678</u>	"	"
Total Dissolved Solids	<u>11640</u>	"	"

By TERESA WHITE

Title LAB TECH

Location FARMINGTON

NOTICE:

This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.

HALLIBURTON ENERGY SERVICES
FIELD LABORATORY
WESTERN AREA

LABORATORY ANALYSIS

To: S & GDate: 06-16-94MARLEXSubmitted by: _____ Date Rec. 06-15-94Well No. GALLEGOS FED 26-12-19 #1 Location: _____Sample Markings WATER TANKSpecific Gravity 1.010pH 7.43Resistivity .464 @ 75°Iron (Fe) 2

Milligrams per Liter

Potassium (K) 250

" "

Sodium (Na) 3590

" "

Calcium (Ca) 657

" "

Magnesium (Mg) 399

" "

Chlorides (Cl) 7120

" "

Sulfates (SO₄) 0

" "

Carbonates (CO₃) 0

" "

Bicarbonates (HCO₃) 1525

" "

Total Dissolved Solids 13633

" "

By TERESA WHITETitle LAB TECHLocation FARMINGTON**NOTICE:**

This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.



The Western Company of North America

3250 South Side River Road
Farmington, New Mexico 87401
Phone (505)327-6222
Fax (505)327-5766

API WATER ANALYSIS

Company MARALEX Sample No. _____ Date Sampled 6-18-93
Field _____ Legal Description _____ County or Parish S.J. State N.M.
Lease or Unit GALEGOS Fed. Well 26-13-1 Depth _____ Formation _____ Water. B/D _____
Type of Water (Produced, Supply, ect.) _____ Sampling Point _____ Sampled By _____

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na	<u>6578</u>	<u>274</u>
Calcium, Ca	<u>288</u>	<u>14.4</u>
Magnesium, Mg	<u>140</u>	<u>11.6</u>
Barium, Ba	<u>—</u>	<u>—</u>
_____	<u>—</u>	<u>—</u>
_____	<u>—</u>	<u>—</u>

ANIONS	mg/l	me/l
Chloride, Cl	<u>10,305</u>	<u>291</u>
Sulfate, SO ₄	<u>14</u>	<u>0.31</u>
Carbonate, CO ₃	<u>0</u>	<u>0</u>
Bicarbonate, HCO ₃	<u>1281</u>	<u>2.1</u>
Hydroxide, OH	<u>0</u>	<u>0</u>
_____	<u>—</u>	<u>—</u>
_____	<u>—</u>	<u>—</u>

Total Dissolved Solids (calc.) 18,606

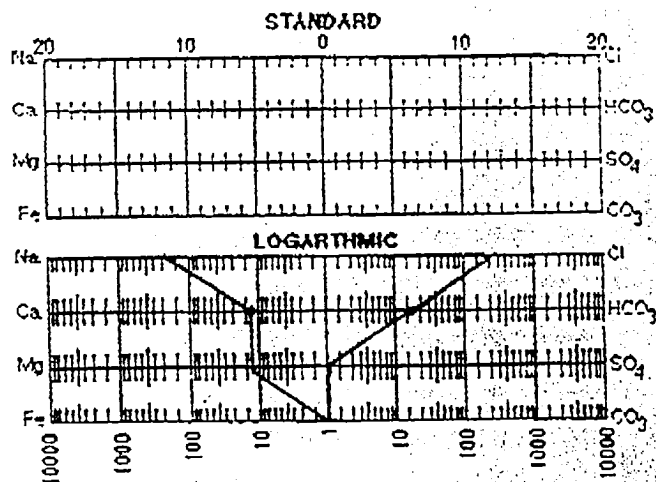
Iron, Fe (total) 0
Sulfide, as H₂S 0

Remarks & Recommendations:

OTHER PROPERTIES

pH 7.26
Specific Gravity, 60/60 F 1.015
Resistivity (ohm-meter) 72 °F
Total Hardness 1300

WATER PATTERNS-me/l



Analyst: Mike McNeese

Please refer any questions to:
Loren Dietz-District Engineer
Thank you.

325-5512

MAR 13 1995

AFFIDAVIT OF PUBLICATION

No. 34480

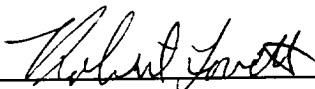
STATE OF NEW MEXICO

County of San Juan:

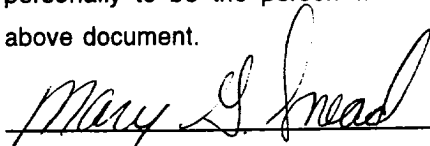
ROBERT LOVETT being duly sworn says: That he is the Classified Manager of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication on the following day(s):

Thursday, March 9, 1995

and the cost of publication was: \$25.93



On 3/10/95 **ROBERT LOVETT** appeared before me, whom I know personally to be the person who signed the above document.



My Commission Expires March 21, 1998.

COPY OF PUBLICATION

Legals



PUBLIC NOTICE

SG Interests, Represented by

Maralex Resources, Inc.
P.O. Box 338
Ignacio, Colorado 81137

Contact Person:
Dennis Reimers (303)563-4000

Notice is given of SG Interests application for permitting the drilling of a produced water disposal well located as follows:

800' FNL, 800' FEL Sec. 16-
T20N-R13W
San Juan County, New Mexico

The well will serve as a produced water disposal well for the Fruitland coal seam water from nearby production wells. Produced water disposal into the Mesa Verde formation and possibly the Pictured Cliffs formation is requested. Anticipated injection rate of 1500 barrels of water per day is expected with a maximum injection pressure of 700 psi.

Interested parties must file objections or request for a hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87504-2088 within 15 days.

Legal No. 34480 published in The Daily Times, Farmington, New Mexico, Thursday, March 9, 1995.

ENDER: Complete items 1 and/or 2 for additional services. Complete items 3, and 4a & b. Print your name and address on the reverse of this form so that we can return this card to you. Attach this form to the front of the mailpiece, or on the back if space does not permit. Write "Return Receipt Requested" on the mailpiece below the article number. The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to: J. GREGORY MERRION Box 1541 FARMINGTON, NM 87401

4a. Article Number: P 352 550 449

4b. Service Type: Registered ☐ Insured ☐ COD ☐ Certified ☐ Return Receipt for Merchandise ☒ Express Mail ☐ Date of Delivery: 12/13/91

5. Signature (Addressee): W BISTI SWD

6. Signature (Agent): [Signature]

PS Form 3811, December 1991 *U.S. GPO: 1992-323-402 DOMESTIC RETURN RECEIPT

ENDER: Complete items 1 and/or 2 for additional services. Complete items 3, and 4a & b. Print your name and address on the reverse of this form so that we can return this card to you. Attach this form to the front of the mailpiece, or on the back if space does not permit. Write "Return Receipt Requested" on the mailpiece below the article number. The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to: T.H. McELVAIN O.T. & GAS Box 2148 Santa Fe, NM 87504

4a. Article Number: P 144 971 655

4b. Service Type: Registered ☐ Insured ☐ COD ☐ Certified ☒ Return Receipt for Merchandise ☒ Express Mail ☐ Date of Delivery: 12/13/91

5. Signature (Addressee): W BISTI SWD

6. Signature (Agent): [Signature]

PS Form 3811, December 1991 *U.S. GPO: 1992-323-402 DOMESTIC RETURN RECEIPT

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3. Article Addressed to: Robert L. Bayless Box 168 FARMINGTON, NM 87401

4a. Article Number: P 352 550 448

4b. Service Type: Registered ☐ Insured ☐ COD ☐ Certified ☐ Return Receipt for Merchandise ☒ Express Mail ☐ Date of Delivery: 12/13/91

5. Signature (Addressee): W BISTI SWD

6. Signature (Agent): [Signature]

PS Form 3811, December 1991 *U.S. GPO: 1992-323-402 DOMESTIC RETURN RECEIPT

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3. Article Addressed to: James Johnson 1909 Cliffside Dr FARMINGTON, NM 87401

4a. Article Number: P 352 550 445

4b. Service Type: Registered ☐ Insured ☐ COD ☐ Certified ☐ Return Receipt for Merchandise ☒ Express Mail ☐ Date of Delivery: 12/13/91

5. Signature (Addressee): [Signature]

6. Signature (Agent): [Signature]

PS Form 3811, December 1991 *U.S. GPO: 1992-323-402 DOMESTIC RETURN RECEIPT

SENDER:

Complete items 1 and/or 2 for additional services.
Complete items 3, 4a & b.
Print your name and address on the reverse of this form so that we can return this card to you.
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Write "Return Receipt Requested" on the mailpiece below the article number.
The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery
Consult postmaster for fee.

3. Article Addressed to:
Key Production Co.
1700 Lincoln St.
DENVER, CO 80203
W. Bisti SWD
4a. Article Number **P 144 971 650**
4b. Service Type ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail ☒ Return Receipt for Merchandise
7. Date of Delivery **3/1/95**
8. Addressee's Address (Only if requested and fee is paid)

5. Signature (Agent)
W. Bisti SWD
PS Form 3811, December 1991 *U.S. GPO: 1992-323-402
DOMESTIC RETURN RECEIPT

SENDER:

Complete items 1 and/or 2 for additional services.
Complete items 3, 4a & b.
Print your name and address on the reverse of this form so that we can return this card to you.
Attach this form to the front of the mailpiece, or on the back if space does not permit.
Write "Return Receipt Requested" on the mailpiece below the article number.
The Return Receipt will show to whom the article was delivered and the date delivered.

3. Article Addressed to:
UNIVERSAL RESOURCES CORP
Box 11070
SALT LAKE CITY, UTAH
84147
4a. Article Number **P 352 550 450**
4b. Service Type ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail ☒ Return Receipt for Merchandise
7. Date of Delivery **3-10-95**
8. Addressee's Address (Only if requested and fee is paid)

5. Signature (Agent)
W. Bisti SWD
PS Form 3811, December 1991 *U.S. GPO: 1992-323-402
DOMESTIC RETURN RECEIPT

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

Complete items 1 and/or 2 for additional services.
Complete items 3, 4a & b.
Print your name and address on the reverse of this form so that we can return this card to you.
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I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery
Consult postmaster for fee.

3. Article Addressed to:
Key Production Co.
Box 7
Fort Worth, TX 76101
W. Bisti SWD
4a. Article Number **P 144 971 651**
4b. Service Type ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail ☒ Return Receipt for Merchandise
7. Date of Delivery **MAR 09 1995**
8. Addressee's Address (Only if requested and fee is paid)

5. Signature (Agent)
W. Bisti SWD
PS Form 3811, December 1991 *U.S. GPO: 1992-323-402
DOMESTIC RETURN RECEIPT

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

Complete items 1 and/or 2 for additional services.
Complete items 3, 4a & b.
Print your name and address on the reverse of this form so that we can return this card to you.
Attach this form to the front of the mailpiece, or on the back if space does not permit.
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The Return Receipt will show to whom the article was delivered and the date delivered.

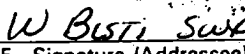
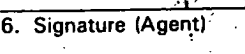
I also wish to receive the following services (for an extra fee):
1. ☐ Addressee's Address
2. ☐ Restricted Delivery
Consult postmaster for fee.

3. Article Addressed to:
Giant Expl. Production
Box 2810
Farmington, NM 87499
W. Bisti SWD
4a. Article Number **P 144 971 653**
4b. Service Type ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail ☒ Return Receipt for Merchandise
7. Date of Delivery **MAR 09 1995**
8. Addressee's Address (Only if requested and fee is paid)

5. Signature (Agent)
W. Bisti SWD
PS Form 3811, December 1991 *U.S. GPO: 1992-323-402
DOMESTIC RETURN RECEIPT

APR 13 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER: • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: Steven Dunn 3100 Western Ave Farmington, N.M. 87401		4a. Article Number P 352 550 447	
5. Signature (Addressee) 		4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input checked="" type="checkbox"/> Return Receipt for Merchandise	
6. Signature (Agent) 		7. Date of Delivery 8. Addressee's Address (Only if requested and fee is paid)	

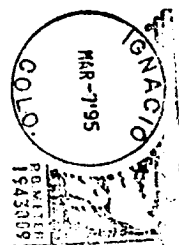
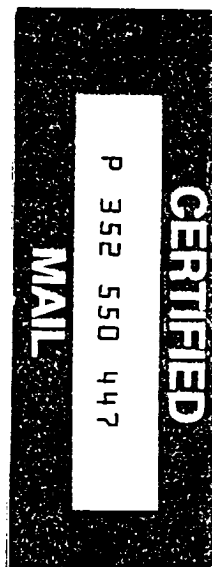
Thank you for using Return Receipt Service.

PS Form 3811, December 1991 U.S. GPO: 1992-323-402 DOMESTIC RETURN RECEIPT

TO:
 Steven Dunn
 3100 Western Ave
 Farmington, NM 87401

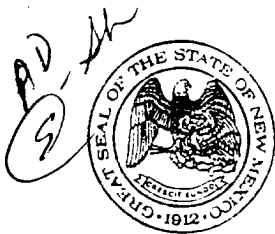
MARALEX-RESOURCES INC.
 P.O. Box 338
 Ignacio, CO 81137

UNDELIVERED TO ADDRESSEE
 RETURN TO SENDER
 If applicable, return to:
 Insufficient Address
 No such office in state
 Do not retail in this section



Handwritten signature

RETURN TO REQUESTOR



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

RECEIVED
JUN 15 1995

OIL CON. DIV.
DIST. 3

ADMINISTRATIVE ORDER SWD-594

**APPLICATION OF SG INTERESTS FOR SALT WATER DISPOSAL, SAN JUAN COUNTY,
NEW MEXICO.**

**ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Rule 701(B), SG Interests made application to the New Mexico Oil Conservation Division on May 18, 1995, for permission to complete for salt water disposal its West Bisti Water Disposal Well No.1 located 800 feet from the North line and 800 feet from the East line (Unit A) of Section 16, Township 26 North, Range 13 West, NMPM, San Juan County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
- (4) No objections have been received within the waiting period prescribed by said rule.

IT IS THEREFORE ORDERED THAT:

The applicant herein, is hereby authorized to complete its West Bisti Water Disposal Well No.1 located 800 feet from the North line and 800 feet from the East line (Unit A) of Section 16, Township 26 North, Range 13 West, NMPM, San Juan County, New Mexico, in such manner as to permit the injection of salt water for disposal purposes into the Mesaverde formation at approximately 3200 feet to 4200 through 3-1/2-inch plastic-lined tubing set in a packer located at approximately 3200 feet.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 640 psi.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Mesaverde formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Aztec district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Aztec district office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

Administrative Order SWD-594

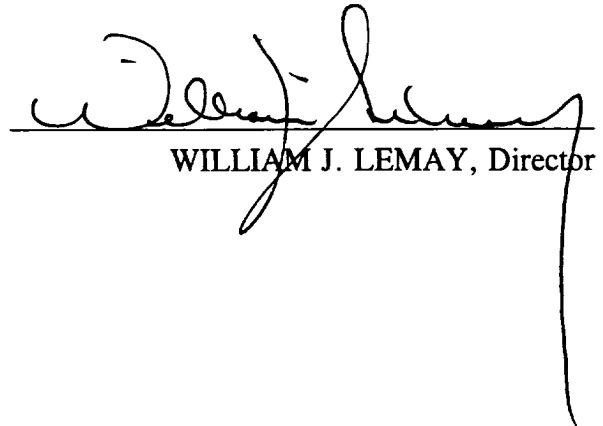
SG Interests

June 6, 1995

Page 3

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Approved at Santa Fe, New Mexico, on this 6th day of June, 1995.


WILLIAM J. LEMAY, Director

WJL/BES

xc: Oil Conservation Division - Aztec ✓
State Land Office - Oil & Gas Division

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

APR 17 1996

WELL API NO. 30-045-29260
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name WEST BISTI STATE 26-13-16
8. Well No. #1
9. Pool name or Wildcat Mesa Verde
10. Elevation (Show whether DF, RKB, RT, GR, etc.) 6223' GR

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE APPLICATION FOR PERMIT
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER Injection <input type="checkbox"/>
2. Name of Operator SG INTERESTS I LTD
3. Address of Operator PO Box 338, Ignacio, CO 81137
4. Well Location Unit Letter A : 800 Feet From The North Line and 800 Feet From The East Line Section 16 Township 26N Range 13W NMPM San Juan County

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data	
NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
OTHER: Extend APD <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
	CASING TEST AND CEMENT JOB <input type="checkbox"/>
	OTHER: <input type="checkbox"/>

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

An APD for this well was approved last year with an expiration date of June 20, 1996. Because the surface is owned by the Navajo Nation, the APD was submitted for approval in June of 1995 and again in July, 1995 (due to the loss of the first one). To date, we have not received approval from the Nation and do not anticipate receiving that approval for some time (there are no problems--just the length of time it takes to go through the approval process of the Navajo Nation). Therefore, SG Interests is requesting an extension of our APD so that when we do receive approval from the Nation, we will be clear to drill this well as approved by NMOC. Our drilling plans remain the same, and we will abide by all previously designated State stipulations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Marcia McCracken TITLE Production Technician DATE April 16, 1996

TYPE OR PRINT NAME Marcia McCracken

TELEPHONE NO. (970) 563-40

(This space for State Use)

APPROVED BY Emile Burch TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE APR 17 1996

CONDITIONS OF APPROVAL, IF ANY:

Extended until Oct 31, 1996