



State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

OIL CONSERVATION DIVISION



ADMINISTRATIVE ORDER DHC-1090

Thompson Engineering & Production Corp.
7415 East Main
Farmington, New Mexico 87402

RECEIVED
FEB - 7 1985

Attention: Paul Thompson

OIL CON. DIV.
DIST. 3

Canyon Well No.10
Unit A, Section 22, Township 25 North, Range 11 West, NMPM,
San Juan County, New Mexico.
Basin Dakota (Prorated Gas) and Bisti Lower Gallup Pools

Dear Mr. Thompson:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations to permit the subject well to commingle production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the two zones is hereby placed in abeyance.

In accordance with the provisions of Rule 303-C-4., total commingled oil production from the subject well shall not exceed 30 barrels per day, and total water production shall not exceed 60 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by Division Rules and Regulations or by the gas allowable for each respective prorated pool as printed in the Division's San Juan Basin Gas Proration Schedule.

In accordance with the provisions of Rule 303-C, the supervisor of the Aztec District Office of the Oil Conservation Division shall determine the proper allocation of production from the subject well following its completion.

FURTHER: The operator shall notify the Aztec District Office of the Division upon implementation of the commingling process.

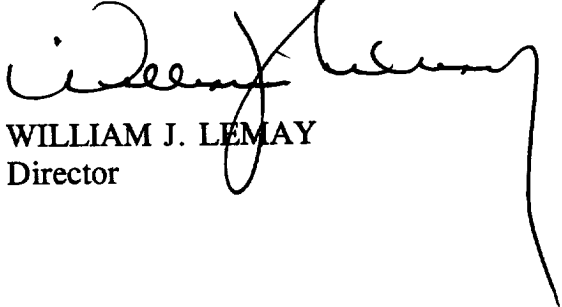
VILLAGRA BUILDING - 408 Galisteo
Forestry and Resources Conservation Division
P.O. Box 1948 87504-1948
827-5830
Park and Recreation Division
P.O. Box 1147 87504-1147
827-7485

2040 South Pacheco
Office of the Secretary
827-5950
Administrative Services
827-5925
Energy Conservation & Management
827-5900
Mining and Minerals
827-5970
Oil Conservation
827-7131

Pursuant to Rule 303-C-5, the commingling authority granted by the order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 3rd day of February, 1995.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

S E A L

WJL/BES

cc: Oil Conservation Division - Aztec
Bureau of Land Management - Farmington

DHC 1090

Ernie Busch

From: Ernie Busch
To: David Catanach
Subject: WALSH ENG & PROD CORP (DHC)
Date: Thursday, February 02, 1995 1:30PM
Priority: High

THOMPSON ENGINEERING AND PRODUCTION CORP
CANYON #10
22-25N-11W
RECOMMEND: APPROVAL

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: Dugan Production Corp. P.O. Box 420 Farmington, NM 87499		OGRID Number 006515	
Property Code 003763		Property Name Mesa	
Well No. 90		API Number 30-0	

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Ids	Feet from the	North/South line	Feet from the	East/West line	County
M	16	24N	8W		1034	South	837	West	San Juan

8 Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ids	Feet from the	North/South line	Feet from the	East/West line	County
Proposed Pool 1 Basin Fruitland Coal					Proposed Pool 2				

Work Type Code	Well Type Code	Cable/Rotary	Lease Type Code	Ground Level Elevation
N	G	R	S	6748' (est)
Multiple	Proposed Depth	Formation	Contractor	Spud Date
NO	1915'	Fruitland	Wayne Smith	ASAP

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
9-7/8"	7"	20#	120'	45	surface
6-1/4"	4 1/2"	10.5#	1915'	175	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.

Plan to drill a 9-7/8" hole and set 120' of 7" OD, 20#, J-55 surface casing; then plan to drill a 6 1/4" hole to total depth with gel-water-mud program to test the Fruitland Coal formation. Plan to run IES and CDL logs. If determined productive, will run 4 1/2", 10.5#, J-55 casing, selectively perforate, frac, clean out after frac and complete well.

BOP and related equipment will be for a 2000 psi system.

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

Signature:

Printed name:

Sherman E. Dugan

Title:

Vice-President

Date:

8/24/94

Phone:

325-1821

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐



WALSH

ENGINEERING & PRODUCTION CORP.

Petroleum Engineering Consulting
Lease Management
Contract Pumping

7415 East Main
Farmington, New Mexico 87402
(505) 327-4892

January 24, 1995

RECEIVED
JAN 26 1995
OIL CON. DIV.
DEPT. 3

TO: Ernie Busch

FROM: Ruth Rogge

REF: Application for Administrative
Approval for Downhole Commingling
Production on Canyon #10

Enclosed is a copy of the above application that I thought
had been sent to your office. I faxed David Catnach a copy today.

We would sure appreciate your help in this matter.

rr

Enclosure

**WALSH**

ENGINEERING & PRODUCTION CORP.

Petroleum Engineering Consulting
Lease Management
Contract Pumping7415 East Main
Farmington, New Mexico 87402
(505) 327-4892~~November 21, 1994~~

Mr. William J. LeMay
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504-2088

Re: Application for Downhole Commingling
Thompson Engineering and Production Corp.
Canyon #10
790'FNL, 790'FEL, Section 22, T25N R11W
San Juan County, New Mexico
Basin Dakota and Lower Bisti Gallup

RECEIVED
JAN 26 1995
OIL CON. DIV.
DIST. 3

Dear Mr. LeMay,

This is a request on behalf of Thompson Engineering and Production Corp., for administrative approval of the above referred to Downhole commingling of the production from the Basin Dakota and Lower Bisti Gallup pools.

I have attached for your review the following Exhibits.

- Exhibit 1: Acreage Dedication Plat (Dakota)
- Exhibit 2: Acreage Dedication Plat (Gallup)
- Exhibit 3: Decline curve from Basin Dakota
- Exhibit 4: Ownership Description (Dakota and Gallup)
- Exhibit 5: Allocation Formula and Fluid Description
- Exhibit 6: Gas Analysis from Basin Dakota
- Exhibit 7: Letters to Offset Operators

The Gallup interval has not been completed pending approval of this application.

Thank you for your consideration and approval of this application. If you have any questions please do not hesitate to call upon me.

Sincerely,

Paul C. Thompson
Paul C. Thompson, P.E.
President

cc: OCD, Aztec, N.M.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.

NOO-C-14-20-5248

6. If Indian, Allottee or Tribe Name

Navajo Indian Tribe

7. If Unit or CA, Agreement Designation

Communitization Agr.

320 acres

8. Well Name and No.

Canyon #10 015033

9. API Well No.

30-045-22168

10. Field and Pool, or Exploratory Area

Basin Dakota 71599

11. County or Parish, State

San Juan County, N.M.

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

THOMPSON ENGR. & PROD. CORP.

037581

3. Address and Telephone No.

7415 E. Main Farmington, New Mexico 87402 505 327-4892

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

A 790'FNL & 790'FEL
Section 22, T25N, R11W

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☐ Recompletion
☐ Plugging Back
☐ Casing Repair
☐ Altering Casing
☒ Other Downhole Commingling
☐ Change of Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

THOMPSON ENGR. & Prod. Corp. seeks Administrative Approval to commingle the production in the Canyon #10 from the Basin Dakota and Lower Bisti Gallup Pools. The Lower Bisti Gallup has not been completed in this wellbore. Please refer to the attached Exhibits:

- Exhibit #1: Acreage Dedication Plat (Dakota).
Exhibit #2: Acreage Dedication Plat (Gallup).
Exhibit #3: Decline curve from Basin Dakota.
Exhibit #4: Ownership Description (Dakota & Gallup).
Exhibit #5: Allocation formula and fluid description.
Exhibit #6: Gas Analysis (Dakota).
Exhibit #7: Letters to Offset Operators.

RECEIVED
JAN 26 1995
OIL CON. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct

Signed Paul C. Thompson

Title Paul C. Thompson, President

Date 11/21/94

(This space for Federal or State office use)

Approved by _____
Conditions of approval, if any:

Title _____

Date _____

EXHIBIT #1
THOMPSON ENGR. & PROD. CORP.
CANYON NO. 10
DAKOTA OFFSET OPERATORS

NASSAU

AMOLLO

TEXACO

CANYON
10

NOC-C-14-26-5-18

Com. # 38561
NM 70100

TEXACO

THOMPSON

TEXACO

N.F. SEARS

CORONADO
MGMT. CO.

MERIDIAN

EXHIBIT #2
THOMPSON ENGR. & PROD. CORP.
CANYON NO. 10
GALLUP OFFSET OPERATORS

NASSAU

TEXACO

TEXACO

CANYON
10

TEXACO

THOMPSON

TEXACO

TEXACO

22

TEXACO

TEXACO

23

29

28

27

26

32

33

34

35

5

4

3

2

LSE/WELL: CANYON

0000010 ID:251,045,25M11W22A000DK

10⁴

10³

GAS MCF

10²

10¹

EXHIBIT #3
THOMPSON ENGR. & PROD. CORP.
CANYON NO. 10
BASIN DAKOTA DECLINE CURVES

$D=6.5$

10³

10²

OIL BLS

10¹

10⁰

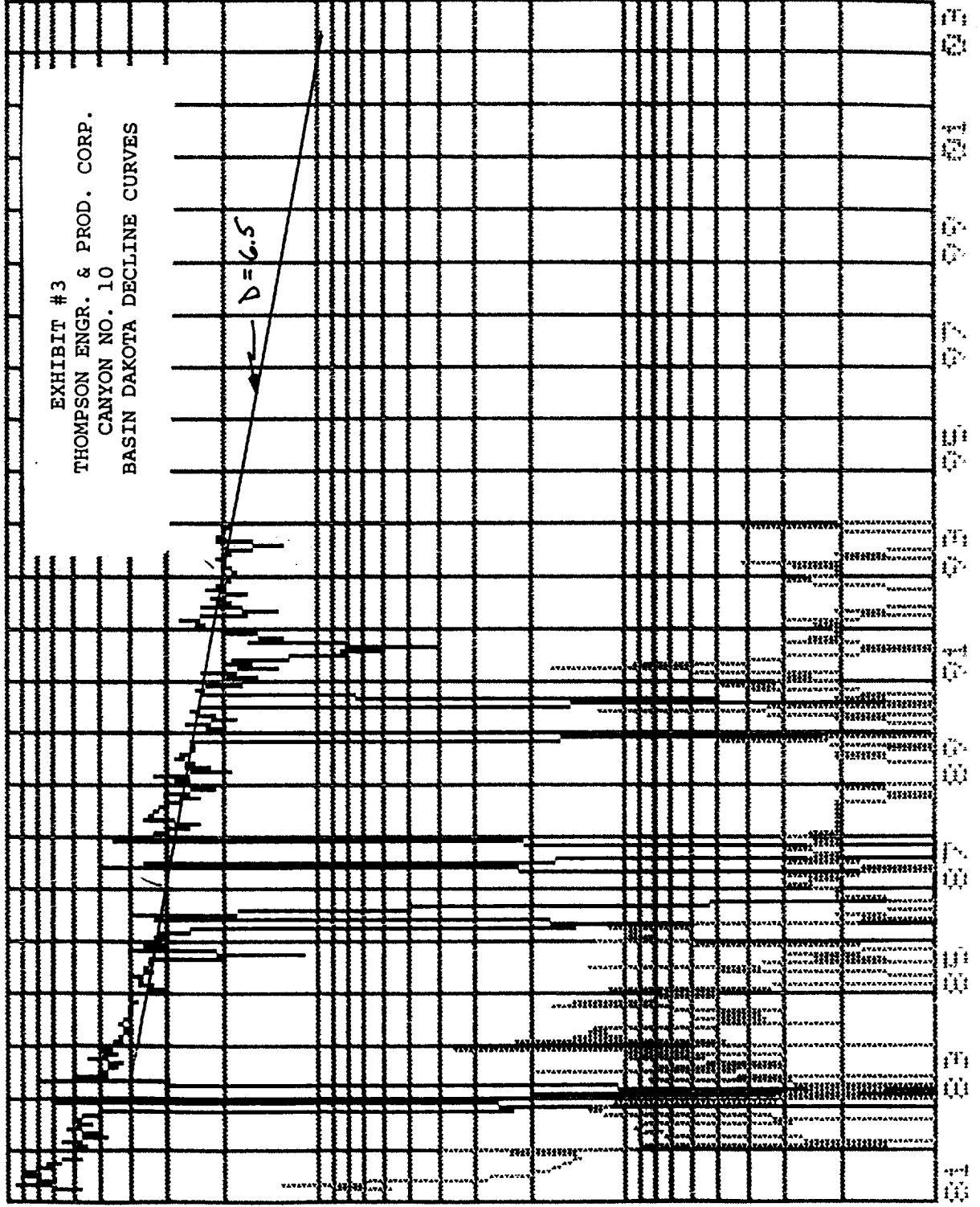


EXHIBIT #4

THOMPSON ENGINEERING AND PRODUCTION
CANYON #10

Interest Owner	Working Interest	Revenue interest
Coleman Oil and Gas	51.0000	37.4000
W. M. Gallaway	49.0000	35.9333
Amoco Production Co.	0.0000	10.0000
Bureau of Indian Affairs	0.0000	16.6667
	=====	=====
	100.0000	100.0000

EXHIBIT #5
THOMPSON ENGINEERING & PRODUCTION
CANYON #10

Allocation Formula:

The decline curve (Exhibit #3) for the Basin Dakota shows that the well has a 6.5% per year decline. The Dakota production can be calculated using the standard equation for exponential decline.

$$Q_t = Q_o e^{(-Dt)}$$

Where Q_t = Production rate at time t MCF/mo.
 Q_o = Production rate at time 0. Currently 1800 MCF/mo.
 D = Exponential Decline Rate (.065)
 t = Time since time 0 in months.

Oil production from the Dakota has averaged 0.002 bbl/mcf. Multiplying this factor times the calculated Dakota gas production will result in the allocated Dakota Oil Production.

The difference between the total production and the calculated Dakota oil and gas production will be allocated to the Lower Bisti Gallup.

The Lower Bisti Gallup zone should produce more oil per MCF than the Dakota zone, and possibly some water, but the fluids will be similar enough that no formation damage should occur as a result of the commingling.

The Lower Bisti Gallup has been developed in this area and we only expect marginal production from this zone. The value of the products from the commingled production will not be less than the sum of the values of the individual zones. The Gallup will not be completed if the downhole commingling application is not approved.

If the downhole commingling application is approved, we will perforate the Lower Bisti Gallup zone at 4947-4957' and slick water fraced with 20-30,000# of 20/40 sand.

Bottom hole pressures in the Dakota have been estimated from surface pressures at 165 psig. The pressure from the Lower Bisti Gallup is expected to be similar to the Dakota.

EXHIBIT #6

EL PASO NATURAL GAS COMPANY
VOLUME ACCOUNTING DEPARTMENT
MEASUREMENT DIVISION
POST OFFICE BOX 1492
EL PASO, TEXAS 79978
PHONE: (915) 541-5287
CHROMATOGRAPHIC GAS ANALYSIS REPORT

DATE 5/08/94

MAILEE
26756

THOMPSON ENGINEERING & PRODUCT
CORPORATION
204 NORTH AUBURN
FARMINGTON, NM 87401

METER NUMBER 83835 - CANYON #10
OPERATOR 0523 - THOMPSON ENGINEERING & PROD

ANALYSIS DATE	4/07/94	TYPE CODE	2 - ACTUAL
SAMPLE DATE	4/06/94	H2S GRAINS	0
EFFECTIVE DATE	5/01/94	LOCATION	D - DANIELS FM
EFFECTIVE FOR	6 MONTHS		

COMPONENTS	NORMALIZED MOL %	GPM
CO2	.57	.000
H2S	.00	.000
N2	1.35	.000
METHANE	77.21	.000
ETHANE	12.64	3.381
PROPANE	4.95	1.364
ISO-BUTANE	.64	.209
NORM-BUTANE	1.13	.356
ISO-PENTANE	.38	.139
NORM-PENTANE	.31	.112
HEXANE PLUS	<u>.82</u>	<u>.358</u>
	100.00	5.919

SPECIFIC GRAVITY .738
MIXTURE HEATING VALUE
(BTU @ 14.73 DRY) 1283
RATIO OF SPECIFIC HEATS .000
NO TEST SECURED FOR H2S CONTENT

**WALSH**

ENGINEERING & PRODUCTION CORP.

Petroleum Engineering Consulting
Lease Management
Contract Pumping7415 East Main
Farmington, New Mexico 87402
(505) 327-4892

November 21, 1994

CERTIFIED MAIL-RETURN RECEIPTMeridian Oil, Inc.
3535 30th Street
Farmington, New Mexico 87402REF: Thompson Engr. & Prod. Corp.
Canyon #10
NE 22, T25N, T11W
San Juan County, N.M.

To Whom It May Concern:

Thompson Engineering and Production Corporation has applied to the New Mexico Oil Conservation Division for Administrative Approval to downhole commingle production from the Basin Dakota with the Lower Bisti Gallup in the subject well.

As an Offset Operator you are being notified of this application, by certified mail, pursuant to NMOCD regulations. If you object to this application, you will need to notify the NMOCD at P. O. Box 6429, Santa Fe, New Mexico within 20 days.

If you have any questions or need additional information, please call or write me at the letterhead address.

Sincerely,

*Paul C. Thompson*Paul C. Thompson, P.E.
President

PCT:rr

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. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Méridian Oil Inc.
3535 30th Street
Farmington, New Mexico 87402

4a. Article Number

Z 688 078 833

4b. Service Type

- ☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

11-23-94

5. Signature (Addressee)

Carolyn Curry

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 *U.S. GPO: 1993-352-714

DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

**WALSH**

ENGINEERING & PRODUCTION CORP.

Petroleum Engineering Consulting
Lease Management
Contract Pumping7415 East Main
Farmington, New Mexico 87402
(505) 327-6892

November 21, 1994

CERTIFIED MAIL-RETURN RECEIPTAMOCO Production Company
200 Amoco Court
Farmington, New Mexico 87401REF: Thompson Engr. & Prod. Corp.
Canyon #10
NE 22, T25N, T11W
San Juan County, N.M.

To Whom It May Concern:

Thompson Engineering and Production Corporation has applied to the New Mexico Oil Conservation Division for Administrative Approval to downhole commingle production from the Basin Dakota with the Lower Bisti Gallup in the subject well.

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Sincerely,

Paul C. Thompson, P.E.
President

PCT:rr

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I also wish to receive the following services (for an extra fee):

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

AMOCO PRODUCTION COMPANY
200. Amoco Court
Farmington, N.M. 87401

4a. Article Number
Z 688 078 830

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 type="checkbox"/> Return Receipt for Merchandise

7. Date of Delivery
11/23/94

8. Addressee's Address (Only if requested and fee is paid)

5. Signature (Addressee)

6. Signature (Agent)
Ken Shatt

PS Form 3811, December 1991 U.S. GPO: 1993-352-714

DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

**WALSH**

ENGINEERING & PRODUCTION CORP.

Petroleum Engineering Consulting
Lease Management
Contract Pumping7415 East Main
Farmington, New Mexico 87402
(505) 327-4892

November 21, 1994

CERTIFIED MAIL-RETURN RECEIPTNassau Resources, Inc.
P. O. Box 809
Farmington, New Mexico 87499REF: Thompson Engr. & Prod. Corp.
Canyon #10
NE 22, T25N, T11W
San Juan County, N.M.

To Whom It May Concern:

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If you have any questions or need additional information, please call or write me at the letterhead address.

Sincerely,

*Paul C. Thompson*Paul C. Thompson, P.E.
President

PCT:rr

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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:

Nassau Resources, Inc.
P. O. Box 809
Farmington, N.M. 87499

4a. Article Number
Z 688 078 832

4b. Service Type

- ☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

11-26-94

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)

Fran Perrin

PS Form 3811, December 1991 ★U.S. GPO: 1993-352-714

DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.



WALSH

ENGINEERING & PRODUCTION CORP.

Petroleum Engineering Consulting
Lease Management
Contract Pumping

7415 East Main
Farmington, New Mexico 87402
(505) 327-4892

November 21, 1994

CERTIFIED MAIL-RETURN RECEIPT

TEXACO EXPLORATION & PROD. INC.
3701 E. Main
Farmington, New Mexico 87402

REF: Thompson Engr. & Prod. Corp.
Canyon #10
NE 22, T25N, T11W
San Juan County, N.M.

To Whom It May Concern:

Thompson Engineering and Production Corporation has applied to the New Mexico Oil Conservation Division for Administrative Approval to downhole commingle production from the Basin Dakota with the Lower Bisti Gallup in the subject well.

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If you have any questions or need additional information, please call or write me at the letterhead address.

Sincerely,

Paul C. Thompson, P.E.
President

PCT:rr



WALSH**ENGINEERING & PRODUCTION CORP.**

Petroleum Engineering Consulting
Lease Management
Contract Pumping

7415 East Main
Farmington, New Mexico 87402
(505) 327-4892

No addresses were available at OCD for the following:

Coronado Management Company
N. F. Sears