



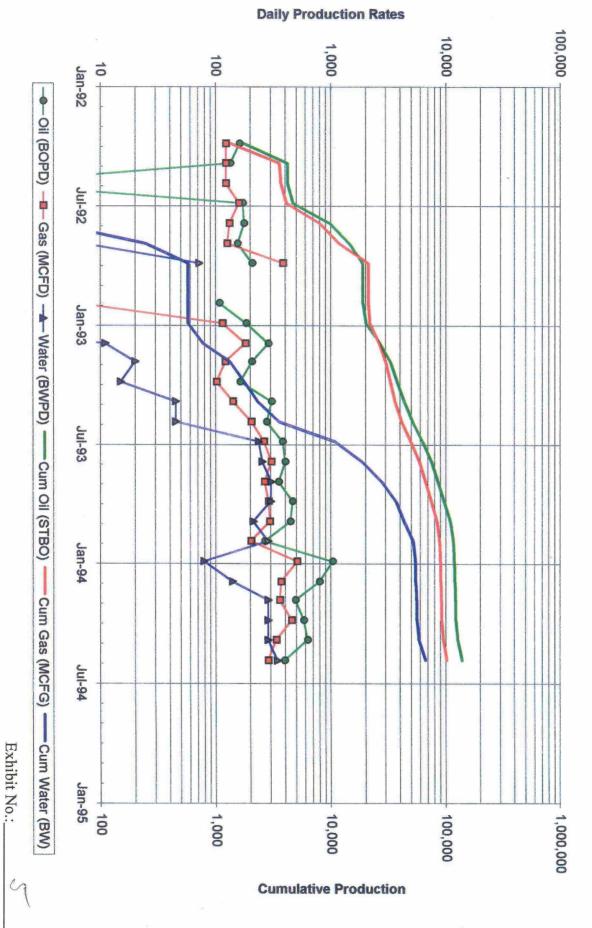
Exhibit No.:

Operator: Bass Enterprises Prod. Co.

September 1, 1994

Date:

# South Golden Lane (Delaware) Field



Operator: Bass Enterprises Prod. Co.

Case No.: 11078

September 1, 1994

### SOUTH GOLDEN LANE (DELAWARE) FIELD

### RESERVOIR SIMULATION STUDY

### **INPUT DATA**

Model:

DRS single porosity black oil by SIMTEC

Grid:

19 x 20 x 11

Structure:

As per structure map

Initial Pressure:

1,910 psia

Porosity:

22% (from log and core data)

Water Saturation:

60% (from log data, refined by history match)

Permeability:

26 md (from core data and Golden 8 Federal #1 PBU Survey)

Fluid Properties:

PVT study

Exhibit No.:	8
Operator:_B	ass Enterprises Prod. Co.
Case No.:_1	
Date:S	September 1, 1994

### SOUTH GOLDEN LANE (DELAWARE) FIELD

### RESERVOIR DATA SHEET

Discovery Well:

Golden 8 Federal No. 1

Completion Date:

March 1992

IP Rate:

149 BOPD, 145 MCFD and 0 BWPD

Cumulative Production:

Oil (to 7-1-94) Gas (to 7-1-94)

139,795 STBO 103,571 MCF

Initial Reservoir Pressure:

1,910 psia

Current Known Reservoir Area: Average Porosity Thickness:

301 Acres 2.888

Average Water Saturation:

55%

Oil Formation Volume Factor:

1.327 RB/STBO

Volumetric Original Oil in Place:

2,287 MSTBO

Estimated Ultimate Oil Recovery without Pressure Maintenance: 602 MSTBO

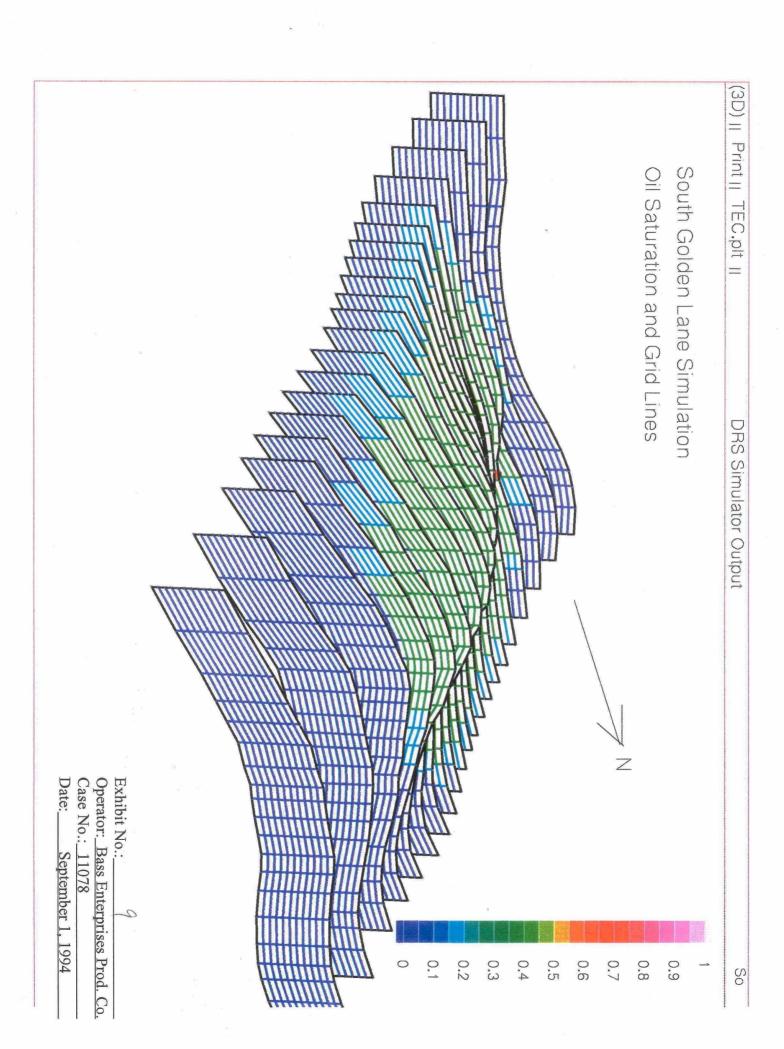
Estimated Ultimate Oil Recovery with Pressure Maintenance:

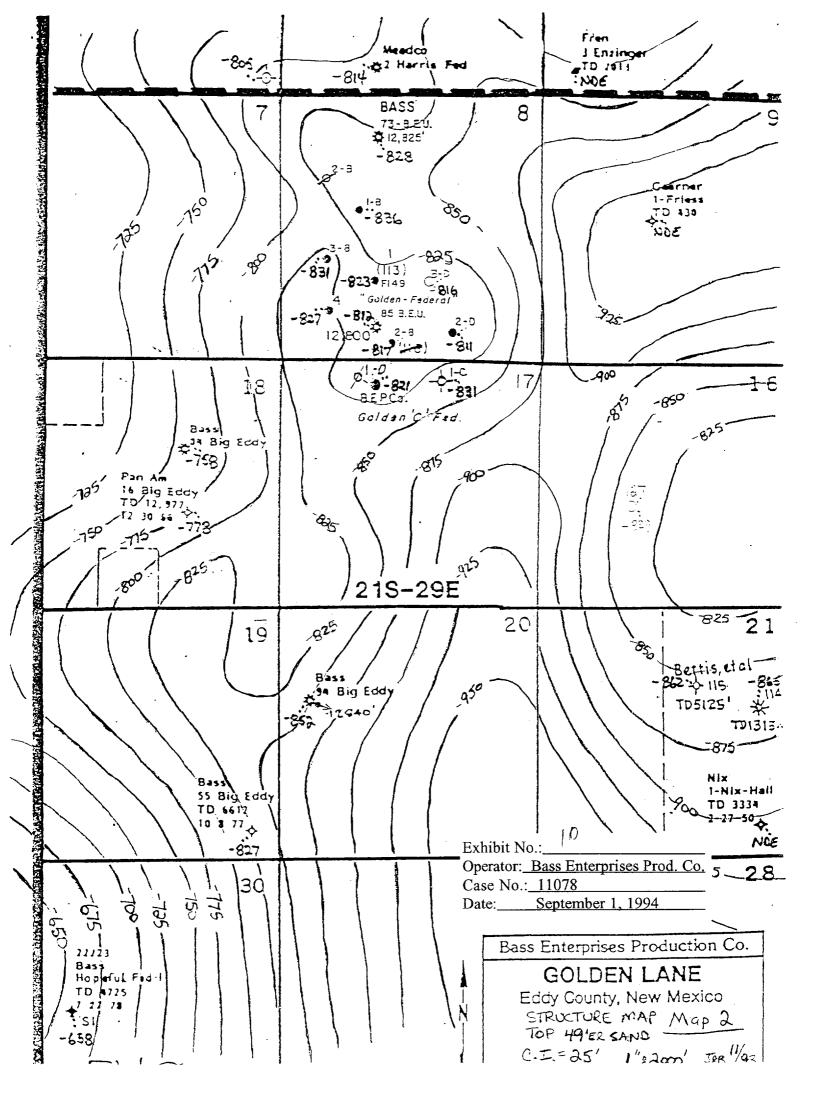
**678 MSTBO** 

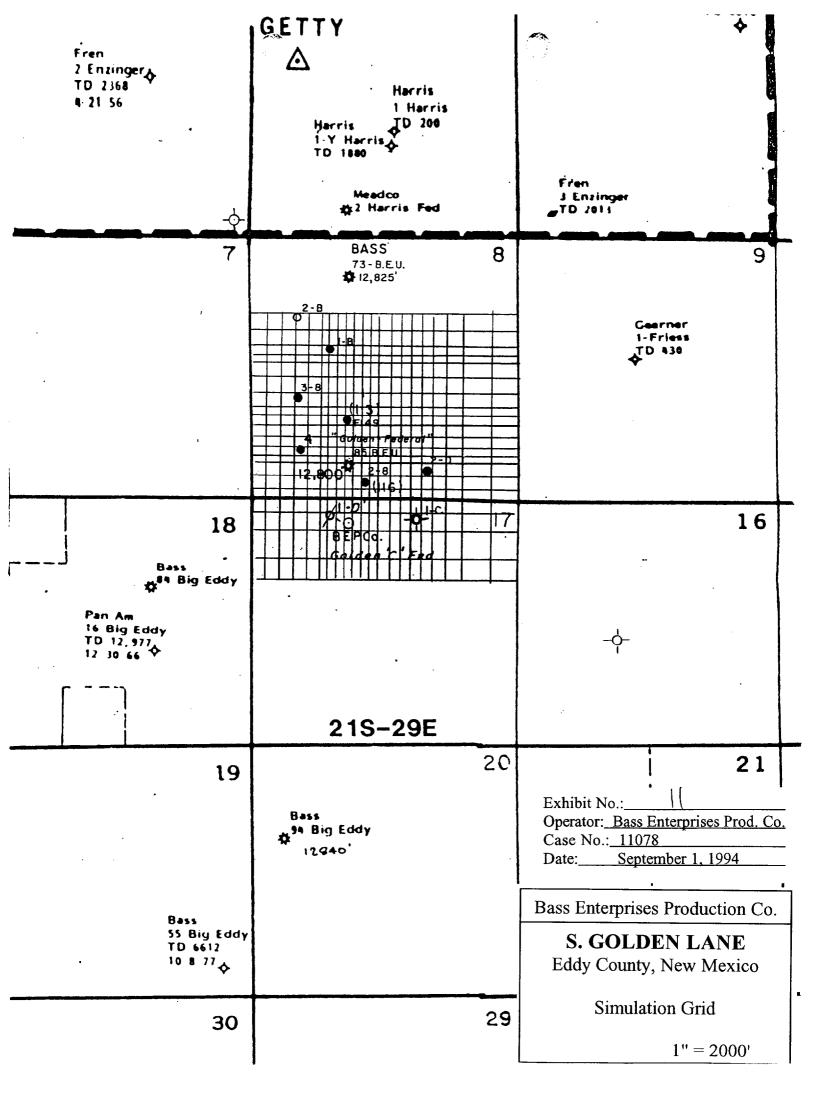
Incremental Oil Recovery due to Pressure Maintenance:

76 MSTBO

Exhibit No.: 7
Operator: Bass Enterprises Prod. Co.
Case No.: 11078
Date: September 1, 1994







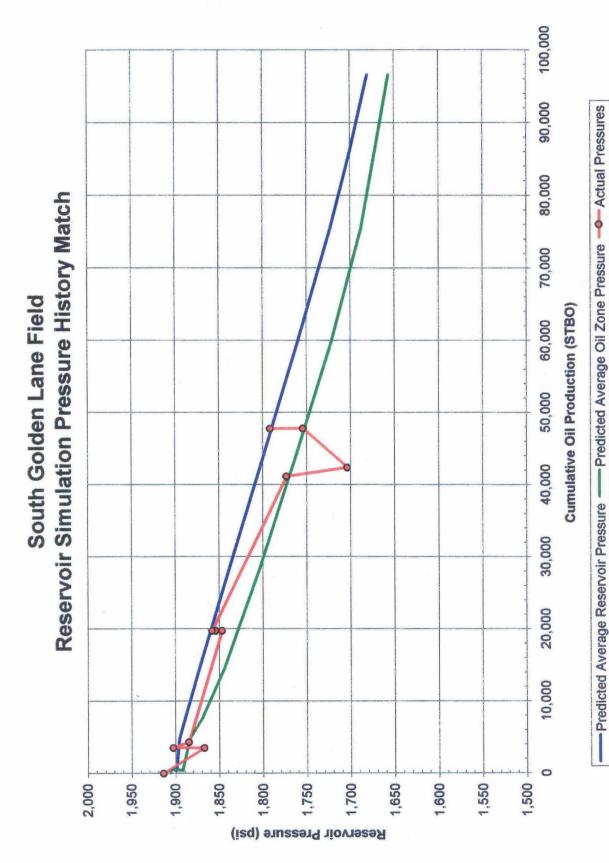


Exhibit No.: (2

Operator: Bass Enterprises Prod. Co. Case No.: 11078

Date: September 1, 1994

# South Golden Lane (Delaware) Field

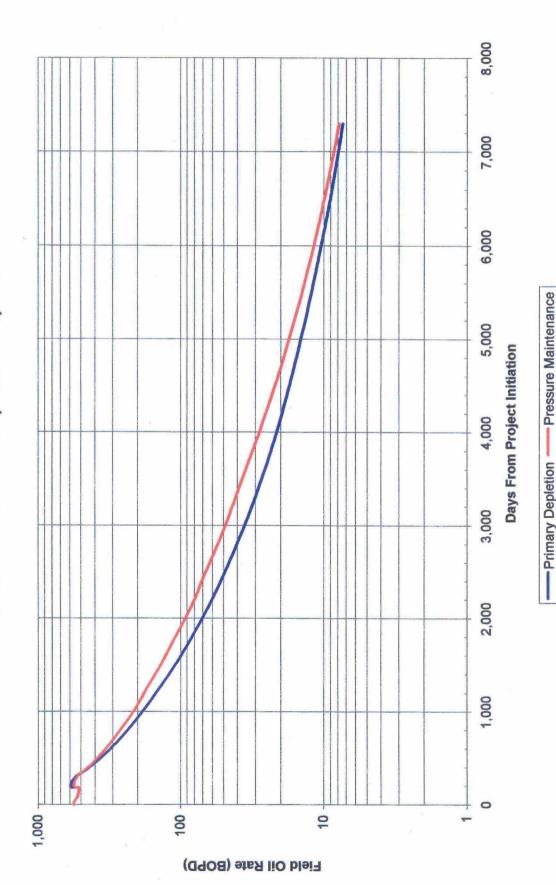


Exhibit No.:\_

Operator: Bass Enterprises Prod. Co.

September 1, 1994 Case No.: 11078

Date:\_

# South Golden Lane (Delaware) Field

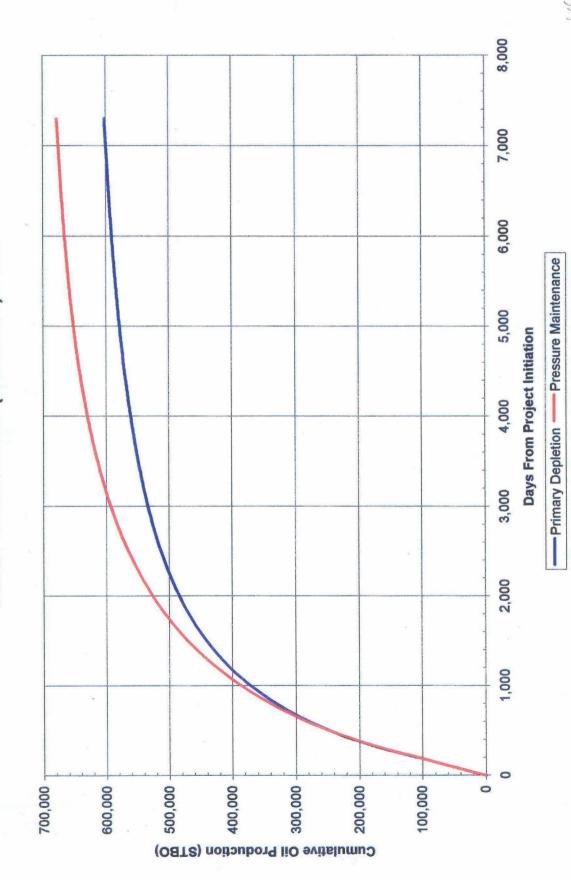


Exhibit No.:\_\_\_

Operator: Bass Enterprises Prod. Co. Case No.: 11078

September 1, 1994

Date:\_

### PRESENT WELLBORE DIAGRAM

Bass Enterprises Production Company South Golden Lane (Delaware) Field Golden 8 Federal No. 3 API No.: 30-015-27283 Eddy County, New Mexico

KBE = 3408' HOLE \$IZE: 14-3/4" Surf Cag: 11-3/4" 42 #/ft H-40 ST&C CSA @ 1,240" cmt'd to surface w/ 750 sx class C cmt DV tool @ 2,022' HOLE SIZE: 11" to 2,822' X  $\times$ Baker model "B" TAC @ 4,175' 4,248' - 4,252' Delaware (6 JSPF, 38 holes) 2-3/8" EUE 8rd 4.7# J-55 tbg to 4,305' HOLE SIZE: 7-7/8"

Prod Csg: 5-1/2" 14 #/ft K-55 ST&C CSA @ 4,575'

cmt'd to surface w/ 1500 sx Halli Lite cmt in 2 stages PBTD @ 4,487'

TD = 4,578

Exhibit No.: Operator: Bass Enterprises Production Co. Case No.: 11078 Date: September 1, 1994

### PROPOSED WELLBORE DIAGRAM

Bass Enterprises Production Company South Golden Lane (Delaware) Field Golden 8 Federal No. 3 API No.: 30-015-27283 Eddy County, New Mexico

KBE = 3408' HOLE SIZE: 14-3/4"
Surf Cag: 11-3/4" 42 #/ft H-40 ST&C CSA @ 1,240'
cmt'd to surface w/ 750 sx class C cmt DV tool @ 2,022' HOLE SIZE: 11" to 2,822' 2-3/8" IPC tbg Baker model "TSN" @ 4,225' 4,248' - 4,310' Delaware HOLE SIZE: 7-7/8"

Prod Csg: 5-1/2" 14 #/ft K-55 ST&C CSA @ 4,575' PBTD @ 4,487'

TD = 4,578'

cmt'd to surface w/ 1500 sx Halli Lite cmt in 2 stages

Exhibit No.:

Operator: Bass Enterprises Production Co.
Case No.: 11078
Date: September 1, 1994

### INJECTION WELL DATA SHEET

Exhibit No.: 17

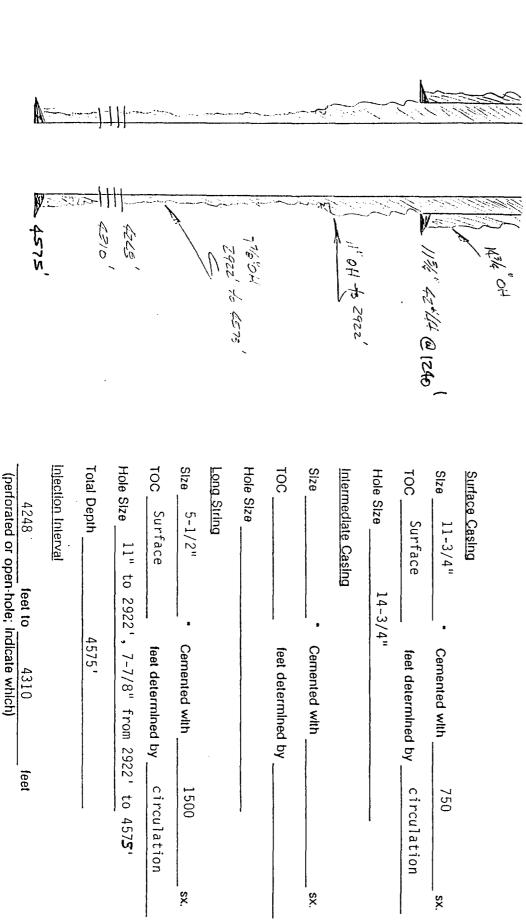
Operator: Bass Enterprises Prod. Co
Case No.: 11078

Date: September 1, 1994

	WEL- NO	OPERATOR
	#3	
FOOTAGE LOCATION	1980' FSL & 660' FWL	BASS ENTERPRISES PRODUCTION CO.
		LEASE
SECTION	8	GOLDEN 8 FEDERAL
TOWNSHIP	T21S	FEDERAL
RANGE	R29E	Date: Septem

Schematic

### Well Construction Data



### INJECTION WELL DATA SHEET

Tubin	Tubing Size 2-3/8" lined with	internal plastic coating set in a
	1ker 5-1-2" "TSN"	(type of internal coating) packer at 4225 feet
Other	Other type of tubing / casing seal if applicable	
Other Data	Data	
<del>. •</del>	Is this a new well drilled for injection?Yes	Yes XXXX No
	If no, for what purpose was the well originally drilled?	led? oil and gas exploration
ю	Name of the injection formation	Cherry Canyon 49er
ώ	Name of Field or Pool (if applicable)	S. Golden Lane
4.	Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e., sacks of cement or plug(s) usedNone	ne(s)? List all such perforated intervals and (s) usedNone
Ċι	Give the names and depths of any over or underlying oil of gas zones (pools) in this area.	ying oil of gas zones (pools) In this area.
	Golden	Golden Lane (Wolfcamp) 10,000'
	Go I den	Golden Lane (Morrow) 12,000'

# INDIVIDUAL WELL DATA OF WELLS WITHIN AREA OF REVIEW SECTION VI, FORM C-108

### GOLDEN 8 FEDERAL #3

9	<b>∞</b>	7	6	Ŋ	4	ω	2	Н	Map No.
BEPCO Golden D Federal #3	BEPCO Golden D Federal #2	BEPCO Golden D Federal #1	BEPCO Golden B Federal #1	BEPCO Golden 8 Federal #4	BEPCO Golden 8 Federal #2	BEPCO Golden 8 Federal #1	BEPCO Big Eddy #85	BEPCO Big Eddy #73	Operator Well Name
2310' FEL & 1650' FSL Section 8, T21S, R29E	660' FSL & 1980' FEL Section 8, T21S, R29E	1980' FWL & 495' FEL Seciton 17, T21S, R29E	2310' FNL & 1650' FWL Section 8, T21S, R29E	990' FSL & 990' FWL Section 8, T21S, R29E	2310' FWL & 330' FSL Section 8, T21S, R29E	1650' FSL & 2180' FWL Section 8, T21S, R29E	660' FSL & 1980' FWL Section 8, T21S, R29E	1980' FEL & 660' FNL Section 8, T21S, R29E	Location
10/04/93	05/04/93	06/14/93	09/09/92	01/15/93	07/09/92	03/03/92	05/28/81	08/25/78	Spud
4,525'	4,550'	4,550'	4,514'	4,573'	4,506'	6,800'	12,800'	12,802'	TD
11/08/93	06/07/93	08/03/93	02/16/93	02/09/93	10/28/92	05/18/92	08/26/81	06/20/79	Completion
11-3/4" @ 1250'	11-3/4" @ 896'	9-5/8" @ 665'	11-3/4" @ 821'	11-3/4" @ 900'	11-3/4" @ 695'	8-5/8" @ 810'	11-3/4" @ 755'	11-3/4" @ 501'	Surface Casing
880 sk	510 sk	400 sk	500 sk	500 sk	500 sk	480 sk	475 sk	500 sk	Cement
Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	TOC

Date:	Case No	Operator	Exhibit No.:
September 1, 1994	Case No.: 11078	Operator: Bass Enterprises Prod. Co.	No.: (8

### INDIVIDUAL WELL DATA OF WELLS WITHIN AREA OF REVIEW SECTION VI, FORM C-108X **GOLDEN 8 FEDERAL #3**

9	∞	7	6	<b>U</b> i	4	ω	2	1	Map No.
BEPCO Golden D Federal #3	BEPCO Golden D Federal #2	BEPCO Golden D Federal #1	BEPCO Golden B Federal #1	BEPCO Golden 8 Federal #4	BEPCO Golden 8 Federal #2	BEPCO Golden 8 Federal #1	BEPCO Big Eddy #85	BEPCO Big Eddy #73	Operator Well Name
I	8-5/8" @ 3000'	I	9-5/8" @ 1570' 7" @ 3052'	8-5/8" @ 3020'	8-5/8" @ 2982' ·	7" @ 3165'	8-5/8" @ 3300'	8-5/8" @ 3354'	Intermediate Casing
ļ	1315 sk	I	600 sk 525sk	1200 sk	1600 sk	800 sk	2150 sk	1675 sk	Cement
I	Surface	I	1140 <sup>(1)</sup> 2671 <sup>(2)</sup>	Surface	Surface	Surface	Surface	Surface	TOC
5-1/2" @ 4,525'	5-1/2" @ 4,550'	5-1/2" @ 4,550'	4-1/2" @ 4,515'	5-1/2" @ 4,573'	5-1/2" @ 4,506'	4-1/2" @ 6,800'	5-1/2" @ 12,800'	5-1/2" @ 12,802'	Production Casing
1660 sk	350 sk	1370 sk	350 sk	350 sk	315 sk	400 sk	1075 sk	1150 sk	Cement
2,462'	None	2,860'	2,998'	None	None	3,727'	4,548'	None	Stage Tool
Surface	1,538'	Surface	Surface	1,866'	1,757'	545'	2,857'	7,716'	TOC(3)
4,226-4,259'	4,203-4,218'	4,208-4,224'	4,260-4,274'	4,214-4,228'	4,195-4,218'	4,238-4,262'	12,365-12,516'	12,595-12,641'	Perfs
Oil	Oil	Oii	Oil	Oil	Oil	Oii	Gas	Gas	Туре

<sup>(1)</sup> by temperature log
(2) calculated using fullsize bit and SF of 2
(3) TOC calculated from OH caliper log

### OPERATIONAL DATA SECTION VII, FORM C-108

### **GOLDEN 8 FEDERAL #3**

AVERAGE DAILY INJECTION RATE

**500 BWPD** 

MAXIMUM DAILY INJECTION RATE

1000 BWPD

TYPE SYSTEM

**CLOSED** 

AVERAGE INJECTION PRESSURE

800 PSI

MAXIMUM INJECTION PRESSURE

850 PSI

SOURCE OF INJECTED WATER

DELAWARE PRODUCED WATER

MEANS OF DISPOSAL

THROUGH 2-3/8" IPC TUBING BELOW PACKER

PROPOSED DISPOSAL INTERVAL

DELAWARE (RAMSEY)

PROPOSED DISPOSAL DEPTH

4,248-4,310'

Exhibit No.: \_\_\_\_\_\_ Operator: Bass Enterprises Prod. Co. Case No.: \_\_\_\_\_\_ 11078

Date: September 1, 1994

### GEOLOGIC DISCUSSION SECTION VIII, FORM C-108

### **GOLDEN 8 FEDERAL #3**

The proposed injection zone is the "49er" sand member of the Cherry Canyon interval of the Delaware Mountain Group. The Delaware Mountain Group consists of fine sands, silts and thin limestone beds. The injection zone averages 90' in thickness with the top at 4248'.

One fresh water well is known to exist within 1 mile of proposed injection well. This well is located in the NE¼ NW¼, Section 18, T-21-S, R-29-E, Eddy County, New Mexico. This water is believed to be Rustler water at depth of 190'-286'. No sources of potable water are known to exist below the proposed injection zone.

Exhibit No	.:70
Operator:	Bass Enterprises Prod. Co
Case No.:_	-
Date:	September 1 1994

### PROPOSED STIMULATION PROCEDURE SECTION IX, FORM C-108

### **GOLDEN 8 FEDERAL #3**

It is proposed to stimulate the injection interval with 3000 gallons 15% HC1 at 2-3 BPM with maximum surface pressure of 1000 psi.

	- ·
Exhibit No	o.:Z1
Operator:_	Bass Enterprises Prod. Co.
Case No.:	-
Date:	Sentember 1 1994

### **SECTION XII, FORM C-108**

### **GOLDEN 8 FEDERAL #3**

BEPCO has 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.

Exhibit No	o.:ZZ
Operator:_	Bass Enterprises Prod. Co.
Case No.:	11078
Date:	Sentember 1 1004

709 W. INDIANA MIDLANO, TEXAS 79701 PHONE 883-4521

P. O. BOX 1468 MONAHANE, TEXAS 79768 PH. 943-3234 OR 563-1040

### RESULT OF WATER ANALYSES

	LABORATORY NO. 894168 SAMPLE RECEIVED 8-25-94		
TO: Mr. Steve Nuese	SAMPLE RECEIVED		
P. O. Box 2760, Midland, TX 79702	_ RESULTS REPORTED	0 05 01	
COMPANY Bass Enterprises Production Company	LEASE Big	Eddy Unit	**
FIELD OR POOL		<del> </del>	
SECTION BLOCK SURVEY COUNTY _	Eddysta	TE NM	
SOURCE OF SAMPLE AND DATE TAKEN:			
NO.1 Raw water - taken @ windmill, 8-25-	94	<del>~</del>	
NO. 2			
NO. 3		****	
NO. 4			
REMARKS:			
CHEMICAL AND PHY	NO. 2	NO. 3	NO. 4
	- NO. Z	NO. 3	10.4
			_ <del> </del>
pH When Sampled  pH When Received 7.0	· R	1	
Bicarbonate as HCO <sub>1</sub> 224			
Supersaturation as CaCO <sub>1</sub>			***************************************
Undersaturation as CeCO,			
Total Hardness as Caco, 2,080			<del></del>
Carclum as Co 648			
Magnesium as Mg 1.1.2			
Sodium and/or Potessium 353			
Sulfete as 30. 1,944			
Chieride as Ci 455			
tron as F8 0.0	4		
Barlum as Be		•	
Turbidity, Electric			
Color se Pt			
Total Rollds, Calculated 3,736			
Temperature *F.			
Carbon Dioxide. Calculated			fra
Dissolved Oxygen.			
Hydrogen Suitide 0.0		7 7	_
Resistivity, onma/m at 77° F. 2.0	5 Exhib	oit No.: <u> </u>	
Suspended OII		tor: Bass Enterp	rises Prod. Co.
Filtrable Solida as mg/l	, -	No.:_11078	-
Valume Filtered, mi	Detail		1.1994
Nitrate, as N 2.7		<u> </u>	
		1	<del></del>
Results Reported As	Millionant Partitor	<u> </u>	
Auditional Determinations and Remarks The undersigned certi		ho true and	correct to
the best of his knowledge and belief.	TES THE BOOME CO	V DE CIME BILL	COLLEGE CO
the best of his knowledge and belief.			·
	And the second s		
			2
Form No. 3	HA I	114	1/2

FAX: Terry Payne

Plats, Sparks, & Assc.

(512 327-7069)

Waylan C. Martin, M.A.

### Affidavit of Publication

State of New Mexico.

County of Eddy, ss.
Amy McKay
being first duly sworn, on oath says:
That she is Business Manager of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:
August 11 , 1994
August 12 , 19 <sup>94</sup>
August 13 , 1994
,19
,19
,19
That the cost of publication is \$ 64.19 and that payment thereof has been made and will be assessed as court costs.  Subscribed and swom to before me this  /// day of

August 11, 12, 13, 1994

NOTICE OF APPLICATION FOR AUTHORIZATION TO INJECT.

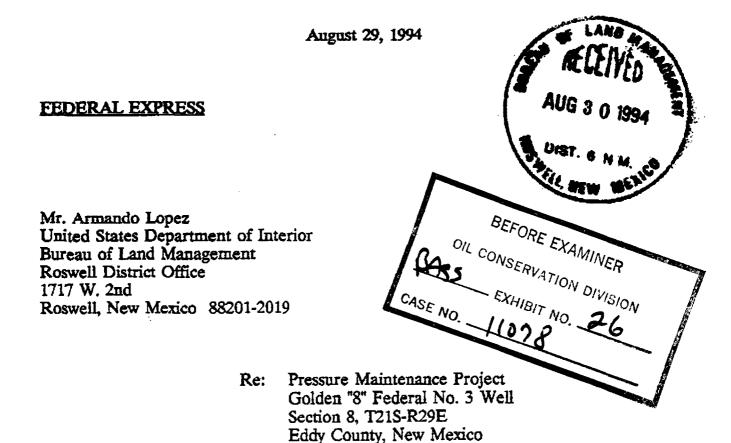
Bass Enterprises Production
Co. has applied to the New
Mexico Oil Conservation Division for a permit to inject produced water for pressure
maintenance into the Golden
"8" Federal 33. The proposed
injection well is located 14
miles Northeast of Caristod.
New Mexico in Soction 8, T21-S. R-29-E. Eddy County.
New Mexico The produced
sait water will be injected at a
subsurface depth of 4248 in
4310". The maximum surface
injection pressure is estimated
at 2100 psi, maximum rate of
1000 BWPD.

Any questions concerning this application should be directed to Bass Enterprises Production Co., Attention: Mr. John Smitherman, Division Production Manager, P.O. Box 2750, Midland, Texas 78702-2760.

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

Exhibit No.: 24
Operator: Bass Enterprises Prod. Co.
Case No.: 11078
Date: September 1, 1994

201 MAIN ST.
FORT WORTH, TEXAS 76102-3131
817/390-8400



Dear Mr. Lopez:

Please reference our telephone conversation of this date whereby you were advised that Bass plans to commence a pressure maintenance project to improve production from wells on Federal leases located in the Big Eddy Unit. As we discussed, the subject project consists of the conversion of the referenced well to a water injection well which will have a positive effect on the production from seven (7) existing producers located in the immediate area on three (3) Federal leases. The project area consists of the following:

NW/4 Section 8, T21S-R29E (USA NM - 0505) SW/4 Section 8, T21S-R29E (USA NM - 02946) SE/4 Section 8 & NW/4 Section 17, T21S-R29E (USA NM 0509)

The above leases are located within the outline of the Big Eddy Unit; however, the production currently being obtained is from the Delaware formation which is located above the Big Eddy unitized depths. For purposes of our application to proceed with the above

August 27, 1994 Page 2

operation, please indicate your approval of Bass' proposed pressure maintenance project. Thank you very much and should you have any questions in the above regard, please advise.

Very truly yours,

. Wayne Bailey

JWB:ca

**BUREAU OF LAND MANAGEMENT** 

Br. Jones L. Ferguson

Date: August 30, 1994