

EMPIRE ABO POOL

I. GAS-OIL RATIO COMPARISONS

Gas-Oil Ratios (MCF/BO)

WELL	JULY 1975	AUGUST 1975	SEPT. 1975	OCT. 1975	NOV. 1975	DEC. 1975
L-16	1.109	1.323	1.067	1.161	1.106	1.113 ✓
L-17	.818	1.031	.775	.868	.814	.821
L-18	.842	1.056	.800	.893	.839	.846
M-16	1.068	1.281	1.025	1.118	1.064	1.071
*Avg. of above Wells	.937	1.151	.896	.991	.936	.943
R.G.Cox EA Fed #1	----	----	GOR- .857	.862	.863	.861
**Average Daily Oil Rate (BOPD)			23.3	38.5	34.7	34.6
*Avg. Daily Oil Rate per Actual Producing Day (BOPD)			35.0	38.5	37.1	41.3
Number of actual producing days			20	31	28	26

*Avg. = Total gas produced for the four wells divided by total oil produced.

** = Total monthly production divided by the number of days in the month.

*** = Total monthly production divided by the number of actual producing days.

II. Oil API Gravity Comparison

A. Empire Abo Unit, nearest batteries to Cox E.A. Fed. No. 1:

	<u>Oil Gravity, °API</u>
Battery M-14	43.5*
Battery K-18	43.8*

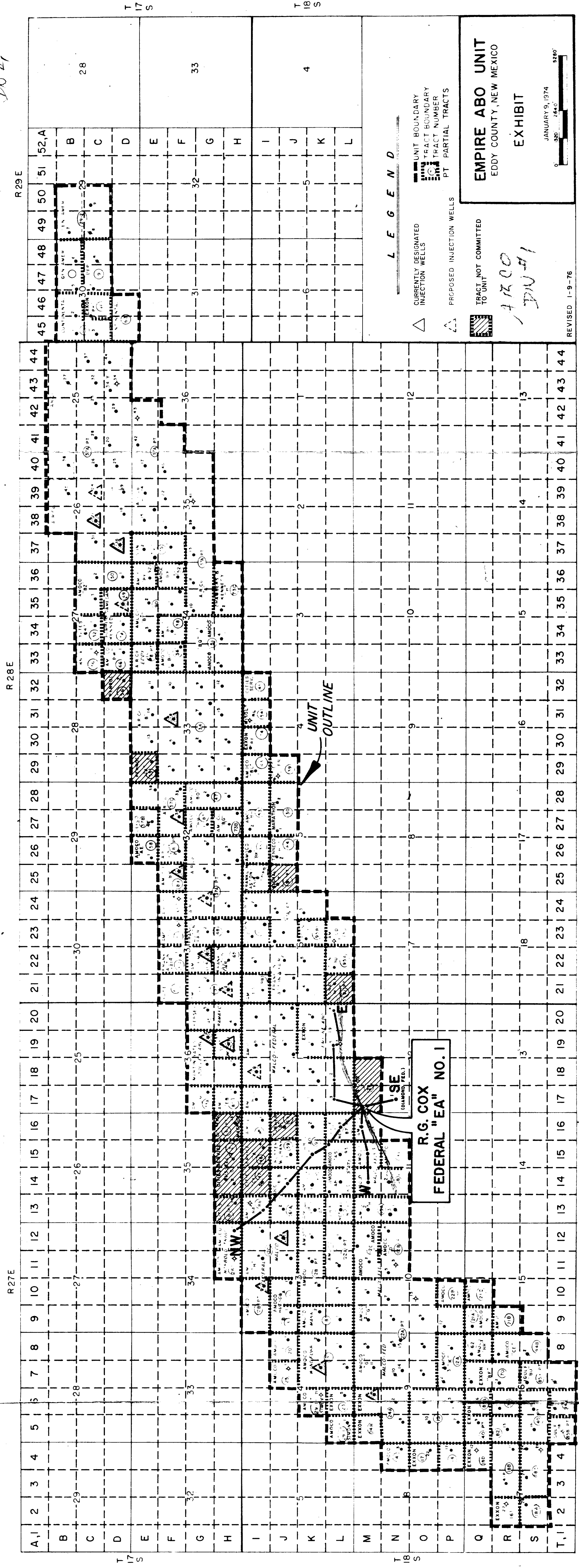
(*Representative gravity for September 1975)

B. Cox E.A. Fed. No. 1

E.A. Fed. No. 1	43**
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(**Data from USGS, "Well Completion or Recompletion
Report and Log," Test date 9/15/75)

DO #1



R.G. COX
FEDERAL "EA" NO. 1

LEGEND

- UNIT BOUNDARY
- TRACT BOUNDARY
- TRACT NUMBER
- PT PARTIAL TRACTS
- CURRENTLY DESIGNATED INJECTION WELLS
- PROPOSED INJECTION WELLS
- TRACT NOT COMMITTED TO UNIT

EMPIRE ABO UNIT
EDDY COUNTY, NEW MEXICO
EXHIBIT



JANUARY 9, 1974

REVISED 1-9-76

Dresser Atlas**Gamma Ray
Neutron**

FILE NO.

Amoco's

X-DN 5

2-24-76

Core # 5571

COMPANY ROBERT G. COXWELL FEDERAL "EA" #1FIELD EMPIRE ABOCOUNTY EOG STATE NEW MEXICO

LOCATION:

Other Services

NONE

SEC 12 TWP 18-S RGE 27-E

Permanent Datum

G.L.Elev. 3609

Log Measured from

K.B.11.0 Ft. Above Permanent Datum

Drilling Measured from

K.B.

Elevations:

KB 3620DF *GL 3609Date 7-29-68Run No. ONEType Log GRNDepth-Driller 6250Depth-Logger 6221 **Bottom Logged Interval 6219Top Logged Interval 5300Type Fluid in Hole MUDSalinity Ppm Cl. *Density Lb. Gal. *Level FULLMax. Rec. Temp. Deg. F 112Opr. Rig Time 2 HRSRecorded By MC ATTEWitnessed By MR. COXEquip & Loc. HL-5028-Hobbs

Run	Bore Hole Record				Casing Record			
No.	Bit	From	To	Size	Wgt.	From	To	
ONE	*	*	*	5 1/2	*	SURF	6210	
ONE	4 3/4	6210	TD					

ILLEGIBLE



Sidewall Neutron Gamma Ray

FILE NO.

Amoco's
X-DN 6
2-24-76
Core
5571 D.N.

COMPANY ROBERT G. COXWELL FEDERAL "EA" NO. 2FIELD EMPIRE ABOCOUNTY EDDY STATE NEW MEXICO

LOCATION:

330' FNL & 455' FWL

Other Services

SEC 12 TWP 18-S RGE 27-EPermanent Datum GROUND LEVEL Elev. 3609Log Measured from K. B. 11 Ft. Above Permanent DatumDrilling Measured from K. B.

Elevations:

KB 3620DF 3619GL 3609

Date	12-15-71			
Run No.	ONE			
Depth—Driller	6225			
Depth—Logger	6227			
Bottom Logged Interval	6225			
Top Logged Interval	SURFACE			
Casing—Driller	8 5/8 1497	@	@	@
Casing—Logger	1470			
Bit Size	7 7/8"			
Type Fluid in Hole	CHEM-GEL			
Density and Viscosity	8.5 38			
pH and Fluid Loss	8.6 10 cc	cc	cc	cc
Source of Sample	PIT			
Rm @ Meas. Temp.	.81 @64 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	.78 @64 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	- @ °F	@ °F	@ °F	@ °F
Source of Rmf and Rmc	MEAS			
Rm @ BHT	.47 @110 °F	@ °F	@ °F	@ °F
Time Since Circ.	4 HOURS			
Max. Rec. Temp. Deg. F.	110 °F	°F	°F	°F
Equip. No. and Location	6028 HOBBS			
Recorded By	MC ATEE			
Witnessed By	MR. COX			



Amoco's X-DN7

2-24-76 Core # 5571 D.N.

FILE NO.

COMPANY

Robert G. Cox

WELL

Federal #1 "EA"

FIELD

Empire A60

COUNTY

Eddy

STATE

N.M.

LOCATION:

330' FNE WL
Summit

OTHER SERVICES:

Ref.

SEC.

12

TWP.

18S

RGE.

27E

PERMANENT DATUM:

G.L.

ELEV:

3209

ELEV.: K.B.

3220

LOG MEASURED FROM

K.B.

FT. ABOVE PERM. DATUM

D.F.

DRILLING MEASURED FROM

K.B.

G.L.

3209

Date

8-8-75

Run No.

ONE

Type Log

D/K Newton

Depth-Driller

6232

Depth-Logger

6220

Bottom logged interval

6220

Top logged interval

5100

Type fluid in hole

Brine

Max rec. temp., deg. F.

Operating rig time

1:00

Recorded by

VANDERKAMER

Witnessed by

MR. Kates

Run
No.

Bore-Hole Record

Casing Record

Bit

From

To

Size

Wgt.

From

To