



**Sun Exploration and
Production Company**

No 24 Smith Road
ClayDesta Plaza
PO Box 1861
Midland TX 79702 9970
915 688 0300

July 10, 1984

State of New Mexico
Energy and Minerals Dept.
Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87501
Attn: Gilbert Quintana

Re: Elliott A-15 #1
Request to downhole
commingle the Penrose
Skelly Grayburg and
Paddock oil zones.

Dear Mr. Quintana:

Sun Exploration and Production Company requests administrative approval for an exception to Rule 303-A to permit downhole commingling of production from the Penrose Skelly Grayburg and Paddock Pools in the subject well. The location of the well is Unit J, Section 15, Township 22-S, Range 37-E in Lea County, New Mexico.

Currently this well is producing from the Paddock, pumping under a packer. Paddock perfs were only recently added (see attached history). Sun requests approval to downhole commingle Grayburg and Paddock production. The total combined oil production from both zones before commingling does not exceed 30 BOPD. Both zones are not capable of flowing and require artificial lift. Neither zone produces more water than the combined oil limit. Ownership of the zones is common. Presently the well is not involved in a secondary recovery project. The efficiency of a secondary recovery project would not be jeopardized by the downhole commingling of the two zones. Additional information as outlined in Rule 303-C is attached.

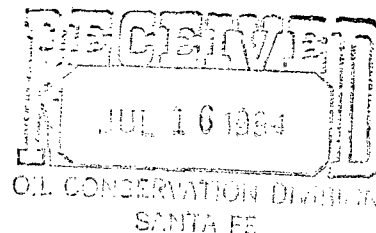
If there are any additional questions please call me at 915-688-0418.

Yours truly,


Coby Osborne
Petroleum Engineer

nc/
cc: R. K. Beggs
F. Brandes
Well File

Tom Golden
J. Crowder



RULE 303-C-2 INFORMATION

- A. Sun Exploration and Production Co.
P. O. Box 1861
Midland, TX 79702
- B. Lease and well
Elliott A-15 #1
1650' FSL and 2310' FEL
Sec. 15 T-22-S, T-37-E
Lea County, New Mexico
Paddock and Penrose Skelly Grayburg
pools to be commingled
- C. Lease plat attached
- D. C-116 for Grayburg and Paddock attached
- E. Production curve for Grayburg attached.
Well history concerning Paddock zone attached.
- F. Bottomhole pressure (corrected to datum 1096' below sea level)
Paddock - 525 psi (from BHP bomb)
Grayburg- 396 psi (est. from fluid level)
- G. No evidence of fluids incompatibility.
Sun's Elliott B-15 #2 located in the same section as the
Elliott A-15 #1 is presently producing downhole commingled
Grayburg and Paddock production.
- H. There will be no loss in value due to the commingling of
production.
- I. Allocation
$$X = \frac{Y}{Z} (100)$$

where X = percentage allocation
Y = daily production rate of desired pool
Z = combined daily rate from both pools.

<u>Paddock</u>		
Oil	X =	$\frac{6}{16} (100)$
		= 37.5%
Gas	X =	$\frac{11}{39} (100)$
		= 28%

<u>Grayburg</u>		
Oil	X =	$\frac{10}{16} (100)$
		= 62.5%
Gas	X =	$\frac{28}{39} (100)$
		= 72%

RULE 303-C-2 INFORMATION

- J. All offset operators have been notified of the proposed commingling by a copy of this application.
- a) Anadarko Production Co.
P. O. Box 2497
Midland, TX 79702
 - b) Amerada Hess Corp.
P. O. Box 840
Seminole, TX 79360
 - c) Gulf Oil E&P
P. O. Box 670
Hobbs, N.M. 88240
 - d) J. H. Hendrix Corp.
525 Midland Tower
Midland, TX 79701
 - e) Sohio Petroleum
P. O. Box 3000
Midland, TX 79702

SUN EXPLORATION & PRODUCTION CO.
 ELLIOT "A" 15 No. 1
 BOTTOM HOLE PRESSURE BUILD-UP TEST
 TABULATION OF TIMES AND PRESSURES

TEST CONDUCTED BY:
 JOHN WEST ENGINEERING COMPANY

TEST DATE: JULY 2 to 3, 1984
 TEST DEPTH: 5100 FEET
 ELEMENT NO: 17664 (0-2150 PSI)
 OPERATOR: R.B.

<u>DATE</u>	<u>TIME</u>	<u>CUM HRS./MIN.</u>	<u>PSIG @ 5100 FEET</u>
7-2-84	12:30 P.M.		Last Swabb
	1:15 P.M.	00 Hrs. 00 Min.	309 gauge reached 5100'
	1:30 P.M.	00 15	337
	1:45 P.M.	00 30	357
	2:00 P.M.	00 45	380
	2:15 P.M.	01 00	398
	2:45 P.M.	01 30	421
	3:15 P.M.	02 00	441
	3:45 P.M.	02 30	459
	4:15 P.M.	03 00	476
	4:45 P.M.	03 30	488
	5:15 P.M.	04 00	505
	6:15 P.M.	05 00	528
	7:15 P.M.	06 00	546
	8:15 P.M.	07 00	563
	9:15 P.M.	08 00	581
	10:15 P.M.	09 00	596
7-2-84	11:15 P.M.	10 00	608
7-3-84	4:15 A.M.	15 00	667
	9:15 A.M.	20 00	716
7-3-84	1:00 P.M.	23 45	749 Off bottom, end of test.

GAS-OIL RATIO TESTS

Operator Sun Exploration and Production Co.		Pool Paddock		County Lea										
Address P.O. Box 1861, Midland, Texas 79702		TYPE OF TEST - (X)		SCHEDULED ☐ SPECIAL ☒										
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT./BBL.	
		U	S	T						R	WATER BBLs.	GRAV. OIL		OIL BBLs.
Elliott A-15	1	J	15	22	37	6-19-84	P			24	10	6	11	1833/1

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Well original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 301 and appropriate pool rules.

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

DeAnn Kemp
(Signature)
Accounting Associate
6-25-84
(Title)

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator SUN OIL COMPANY		Pool PENROSE SKELLY GRAYBURG		County LEA										
Address P. O. Box 1861, Midland, Texas 79702		TYPE OF TEST - (X)		Completion ☐ Scheduled ☒		Special ☐								
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKES SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT./BBL	
		U	S	T						R	WATER BBLs.	GRAV. OIL		OIL BBLs.
Elliott A-15	1	J	15	22	37	10/7/83	P 2"	20	12	24	15	10	28	2,800
Elliott B-15	3	B	15	22	37	9/18/83	P 2"	20	6	24	6	61	10,167	
State "B"	1	N	18	21	37	T.A.								
Walden	1	D	15	22	37	9/4/83	P 2"	18	4	24	8	2	40	20,000
Walden	2	C	15	22	37	10/20/83	P 2"	18	5	24	15	2	38	19,000
V. Linam	2	B	29	21	37	10/13/83	P 2"	20	8	24	4	5	97	19,400
W.W. Weatherly	2	J	17	21	37	10/7/83	P 2"	28	4	24	0	3	31	10,333
	3	G	17	21	37	10/8/83	P 2"	28	3	24	0	3	41	13,667
	5	B	17	21	37	10/11/83	P 2"	30	11	24	5	7	51	7,286
	6	K	17	21	37	10/13/83	P 2"	40	11	24	145	4	81	20,250

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Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

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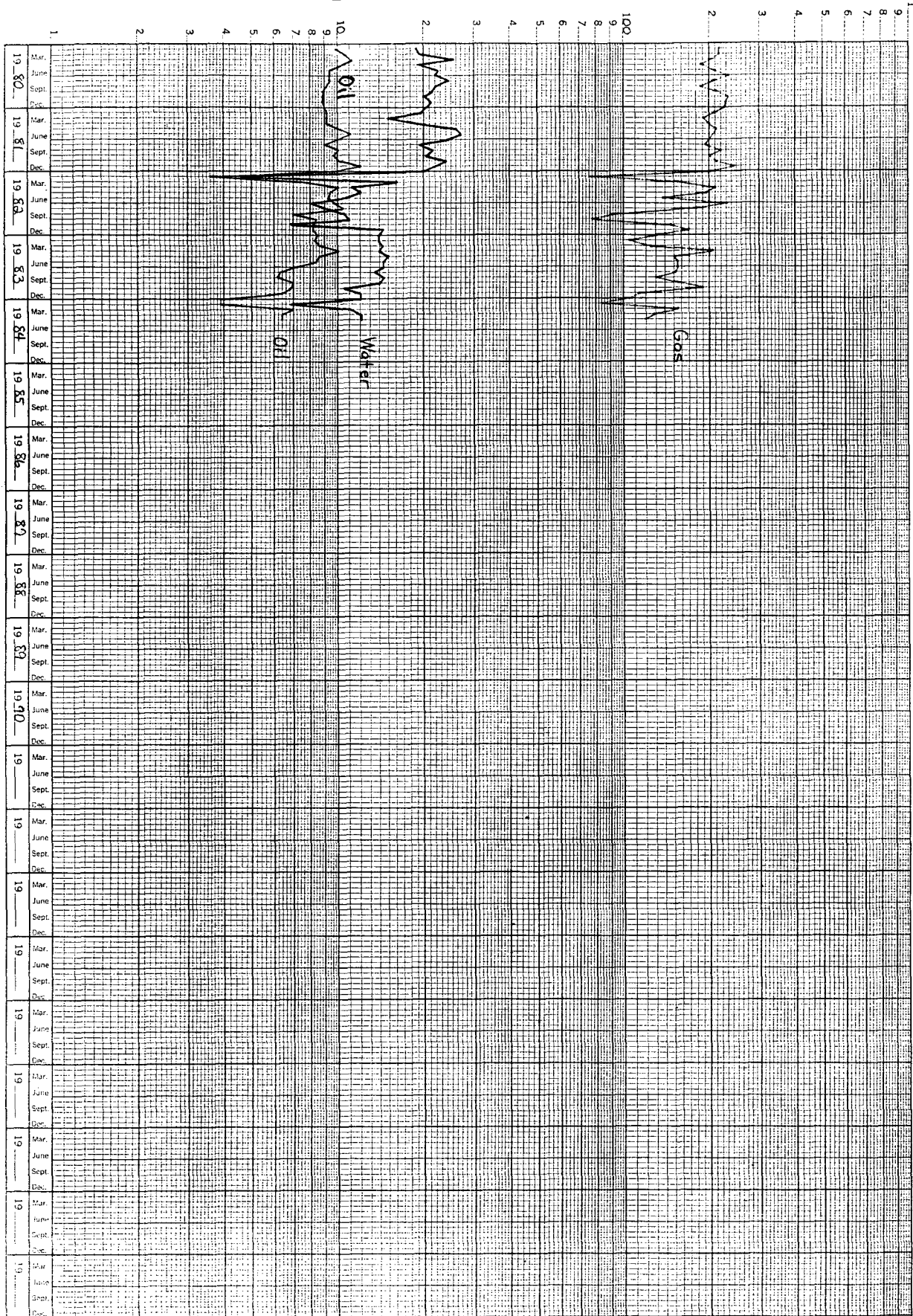
I hereby certify that the above information is true and complete to the best of my knowledge and belief.

Rich Melick
(Signature)

Sr. Engr. Tech. (505-394-2547)

10-31-83
(Date)

BOPD BOPD



MCFPD

Elliott A-15 #1
Penrose Skelly - Grayburn

Elliot A-15 #1
Well History

Location: 1650' FSL, 2310' FEL, Sec 15, T-22-S, R-37-E, Lea County,
New Mexico

Elevations: DF 3392' GL 3382'

TD: 7690'

Casing: 10-3/4", 32.75# @ 191', cmt w/125 sx, cmt circ. to surface
7-5/8", 24# @ 2801', cmt w/1450 sx, cmt circ. to surface
5 1/2", 17# @ 7603', cmt w/481 sx, TOC @ 3070' (survey)

Original Completion: 2-17-48 Perf Ellenburger 7516-45' and 7550-86'. Acidized
perfs w/500 gals 15% HCL. Acidized perfs 7516-86 w/1500
gals 15% HCL. Acidized 7603-90' w/1500 gals 15% HCL.
IP: F 250 BO in 5 hrs.

Workovers: 2-3-50 Acidized perfs 7603-90' w/1500 gals 15% regular acid.
Swabbed 77 BO in 15 hrs.

7-7-66 Acidized 7516-86' and 7603-90' w/5000 gals 15% NEHCL & 800
lbs salt. P/24 hrs 19 BO, 13 BW, 221 MCF.

9-16-69 Spot 25 sx cmt plug 7450-7600. Set CIBP @ 3960' w/1 sx cmt
on top. Ran GR-N log 3900-2400' and perf 3648-3855' w/32 1/2"
holes. Frac w/2,000 gals 15% HCL, 40,000 gals Mod br plus
60,000 lb 20/40 sd.
Test: P/24 hrs: 66 BO, 165 BW, 40 MCF.

6-20-84 Perf Paddock 5133-5153. Acdz w/2000 gals 15% NEFE. Swab
1 BO, 35 BLAW, 105 BW in 7 hrs. Sqz w/100 sxs cmt. Perf
Paddock 5065-5083 and 5095-5125, 1 SSPF. Acdz w/5000 gals
15% NEFE. Test 24 hrs. pumping 5 BO, 62 BW, 23 MCF under
a packer. Grayburg perfs 3648-3855 isolated by packer.

WELL COMPLETION SKETCHES SUN-5036-4-A

WELL

Elliot A-15 #1

FIELD

Penrose Skelly Grayburg

DATE

7-9-84



PRESENT COMPLETION



SUGGESTED COMPLETION

PERMANENT WELL BORE DATA

DF: 3392'

GL: 3382'

10-3/4", 32.75 # CS @ 191'
cmt w/ 125 SX, cmt circ
to surface

7-5/8", 24 # CS @ 2801'
cmt w/ 1450 SX, cmt
circ to surface

TOC @ 3070' by survey

5-1/2", 17 # CS @ 7603', cmt
w/ 481 SX, TOC @ 3070'
(survey)

DATA ON THIS COMPLETION

2-3/8" I-55 tbq

Perfs (Grayburg) 3648-3855'
(32 1/2" holes)

Baker model RDG pkr @ 5000'
New

Perfs (Paddock):

Set I(a): 5133 - 5153'

Set I(b): 5095 - 5125'

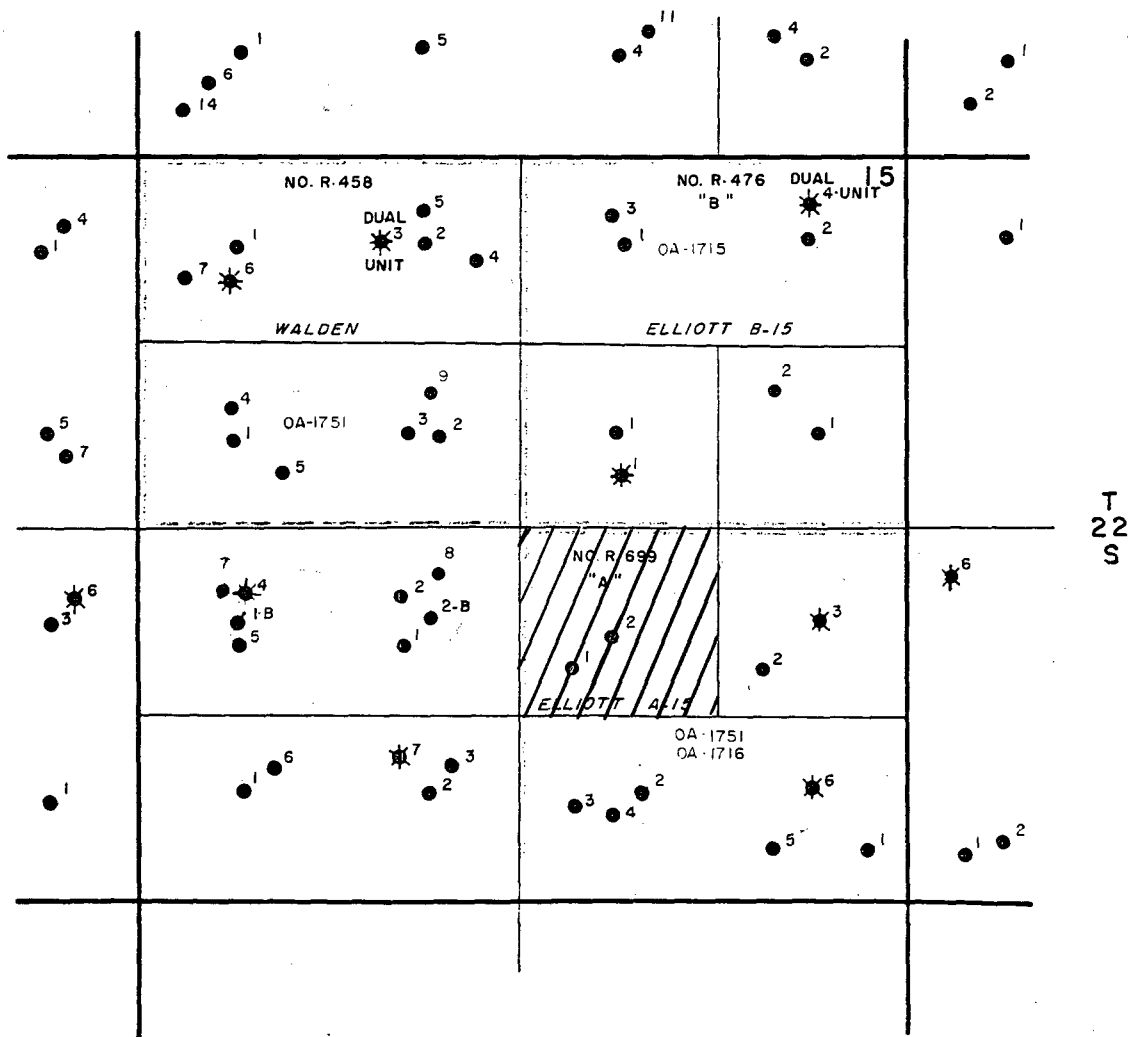
Set II: 5065 - 5083'

cmt plug 7450-7600'

Perfs 7516-45', 7550-86'
w/ 6 15/32" SPF

TD 7690'

R-37-E



ELLIOTT A-15 - BRUNSON
- DRINKARD
ELLIOTT B-15 - BLINEBRY
- DRINKARD
- PADDOCK
WALDEN - BLINEBRY
- DRINKARD
- EUMONT
- PADDOCK
- PEN - SKELLY
- TUBB

- BLINEBRY GAS
- BRUNSON
- DRINKARD
- EUMONT GAS
- PADDOCK
- PENROSE-SKELLY
- TUBB GAS
LEA CO., NEW MEXICO
SCALE: 1" = 1000'



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

July 17, 1984

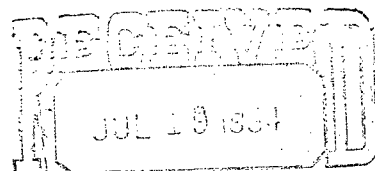
TONEY ANAYA
GOVERNOR

POST OFFICE BOX 1880
HOBBS, NEW MEXICO 88240
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC	_____
DHC	_____ X _____
NSL	_____
NSP	_____
SWD	_____
WFX	_____
PMX	_____



OIL CONSERVATION DIVISION
SANTA FE

Gentlemen:

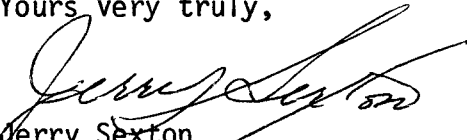
I have examined the application for the:

Sun Expl. & Prod. Co.	Elliott A-15	No. 1-J	15-22-37
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

O.K.----J.S.

Yours very truly,


Jerry Sexton
Supervisor, District 1

/mc