Cross Timbers Operating Company

New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division
2040 South Pacheco St.
Santa Fe, NM 87505

Attention: Mr. David Catanach

Re: Allocation formula for Florance #70
Downhole Commingle Application

Dear Mr. Catanach:

Cross Timbers Operating Co. has reviewed your letter concerning the use of fixed allocation as proposed in the submitted C-107A downhole commingle application.

Upon further review of offset production data from both the Fruitland coal and Pictured Cliffs formations Cross Timbers Operating Co. is proposing that the allocation of production from the Florance #70 be based on the following evidence. A review of the data for the Fruitland Coal formation has proven inconclusive as whether the coal in this area is experiencing inclining production due to dewatering. On the other hand the data for the Pictured Cliffs formation has provided more consistent and predictable decline data.

Therefore Cross Timbers Operating Co. is certain that an acceptable allocation factor can be obtained using the subtraction method based on the decline rates for Pictured Cliffs formation. Through internal analysis Cross Timber has determined that, for this area, the Pictured Cliffs formation has an average initial decline of 35% per year for 1.5 years and then will decline at a rate of 7% per year until the well reaches abandonment rate. Cross Timbers also feels that the initial starting rate for the Pictured Cliffs should be 150 MCFPD (4,500 MCFPM). The fore mentioned data was obtained from decline data on the Blanco LS #19, Howell F #2, howell F #3, Filan 37 and the Hammond #8.

The enclosed table will be used to allocate the production for both zone using the subtraction method. Also enclosed are copies of some offset decline curves for the Pictured Cliffs formation for your review.

If you should have any more questions please feel free to contact Cross Timbers Operating Co.

Sincerely,

Jeffery W. Patton
Production Engineer

Enclosures

2700 Farmington Avenue, Building K, Suite 1
Farmington, New Mexico 87401
(505) 324-1090, Fax (505) 564-6700

Florance 70 - Allocation of PC gas based on the indicated decline

Year	Month	150 MCFD Case (MCFM)	150 MCFD Case (MCF/yr)	150 MCFD Case Cum Gas (MCF)	
1	1	4,500		4,500	**35% Decline From Here**
1	2	4,341		8,841	
1	3	4,188		13,030	
1	4	4,041		17,070	
1	5	3,898		20,968	
1	6	3,761		24,729	
1	7	3,628		28,357	
1	8	3,500		31,857	
1	9	3,377		35,234	
1	10	3,258		38,491	
1	11	3,143		41,634	
1	12	3,032	44,666	44,666	
2	1	2,925		47,591	
2	2	2,822		50,413	
2	3	2,722		53,135	
2	4	2,626		55,761	
2	5	2,534		58,295	
2	6	2,444		60,740	
2	7	2,358		63,098	
2	8	2,275		65,373	
2	9	2,195		67,568	**7% Decline From Here To Life of the Well**
2	10	2,182		69,749	
2	11	2,168		71,918	
2	12	2,155	29,407	74,073	
3	1	2,142		76,215	
3	2	2,129		78,345	
3	3	2,117		80,462	
3	4	2,104		82,565	
3	5	2,091		84,657	
3	6	2,079		86,735	
3	7	2,066		88,801	
3	8	2,054		90,855	
3	9	2,041		92,896	
3	10	2,029		94,925	
3	11	2,017		96,941	
3	12	2,004	24,873	98,946	
4	12	1,864	23,202	122,148	
5	12	1,734	21,578	143,726	
6	12	1,612	20,067	163,793	
7	12	1,499	18,663	182,455	
8	12	1,395	17,356	199,812	
9	12	1,297	16,141	215,953	
10	12	1,206	15,011	230,964	
11	12	1,122	13,961	244,925	
12	12	1,043	12,983	257,908	
13	12	970	12,075	269,983	
14	12	902	11,229	281,212	
15	12	839	10,443	291,655	
16	12	780	9,712	301,368	
17	12	726	9,032	310,400	
18	12	675	8,400	318,800	
19	12	628	7,812	326,612	
20	12	584	7,265	333,877	
21	12	543	6,757	340,634	
22	12	505	6,284	346,918	
23	12	470	5,844	352,762	
24	12	437	5,435	358,196	
25	12	406	5,054	363,251	
26	12	378	4,701	367,951	
27	12	351	4,372	372,323	
28	12	327	4,065	376,388	
29	12	304	3,781	380,169	
30	12	283	3,516	383,685	

Florance 70
PC Type Curve

Well Name	Start Rate (mcfm)	Initial Dec (%)	Break Rate (mcfm)	Final Dec (%)	Break/Start (frac)
Blanco LS 19	3600	30	1900	8	0.53
Howell F 2	3600	33	1750	8	0.49
Howell F 3	2400	33	1100	7	0.46
Filan 7	7400	30	4200	8	0.57
Hammond 8	5400	40	2600	6	0.48
Avg		33		7	0.50

Type Curve to use:

Initial Decline	35%
Break/Start	0.50
Final Decline	7%

Cross Timbers Oil Company

	Oil (bbls/mo)	Gas (mcf/mo)
Qi	0	0
Qel	0	0
Decline	0.0 %	0.0 %

	Oil (bbls)	Gas (mcf)
Gross Cum @**/**	0	247,052
Gross Remaining	0	0
Gross Ultimate	0	247,052
Net Remaining	0	0

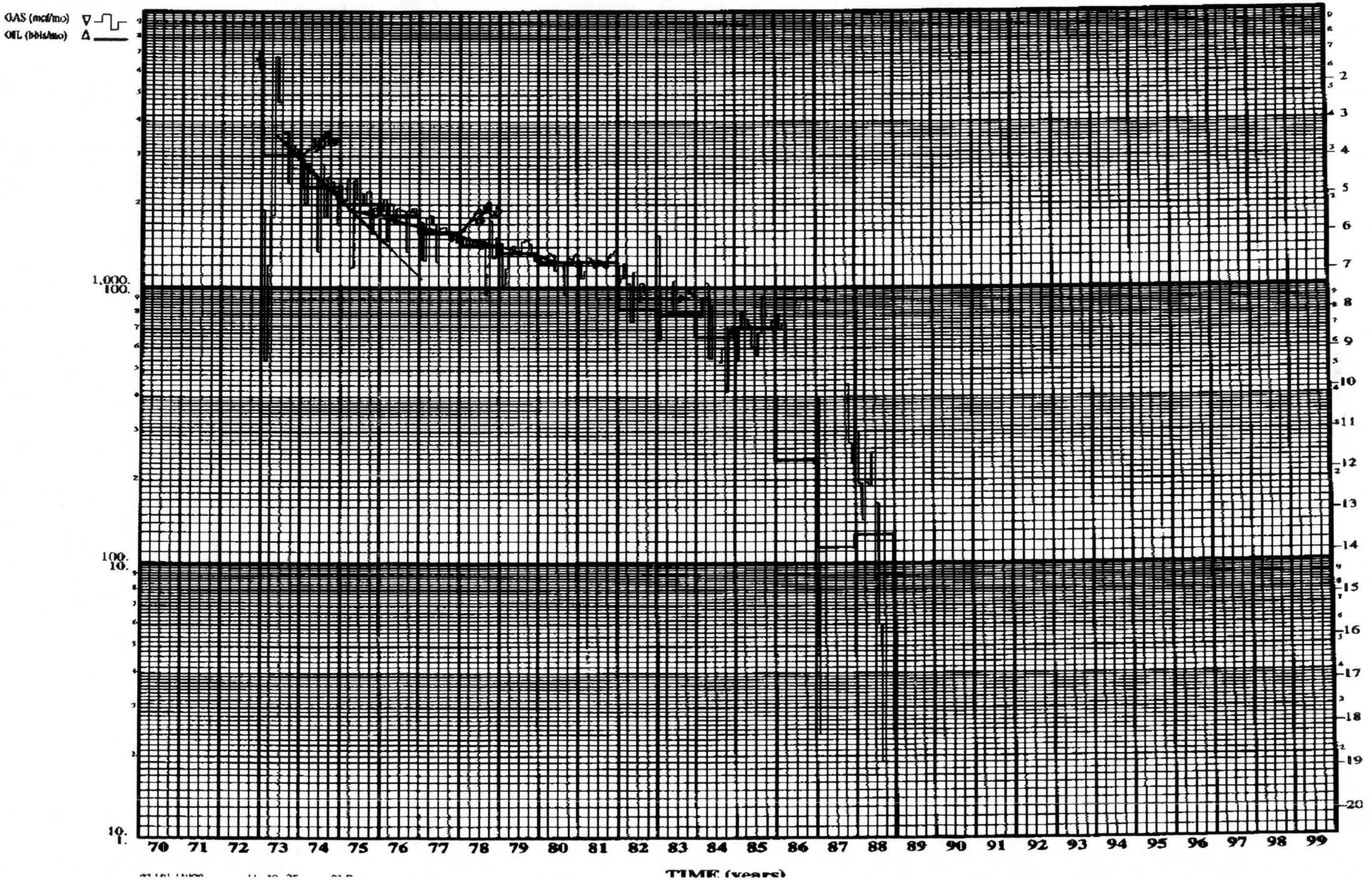
Res_Cat. 0.000
Life
As-of-Date
Setup file
Q_Prod
Q_Owner
Q_Other

WI -	0.00000 %	Oil Price ($/bbl)	Gas Price ($/mcf)	OPC ($/bbl)	Flat Life (years)	Last Production	Net Cash Flow	P.W. @ 0.0 %
NRI -	0.00000 %	0.00	0.00	0.00	0.0	03/99	$ 0	$ 0

BLANCO LS 19
AMOCO PRODUCTION COMPANY
BLANCO SOUTH (PICTURED CLIFFS)
SAN JUAN, NEW MEXICO
I 27N8 W
C *30045209020000*

Run Date :
Run Time:

CTOC -



Cross Timbers Oil Company

	Oil (bbls/mo)	Gas (mcf/mo)		Oil (bbls)	Gas (mcf)	Res. Cat.	0.000
Qi	0	0	Gross Cum @ **/**	0	269,780	Life	
Qel	0	0	Gross Remaining	0	0	As-of-Date	
Decline	0.0 %	0.0 %	Gross Ultimate	0	269,780	Setup file	
			Net Remaining	0	0	Q_Prod	
						Q_Owner	
						Q_Other	

		Oil Price ($/bbl)	Gas Price ($/mcf)	OPC ($/bbl)	Flat Life (years)	Last Production	Net Cash Flow	P.W. @ 0.0 %
WI -	0.000000 %							
NRI -	0.000000 %	0.00	0.00	0.00	0.0	07/98	$ 0	$ 0

HAMMOND **8**

WESTERN OIL & MINERALS LIMITED

BLANCO SOUTH (PICTURED CLIFFS)

SAN JUAN, NEW MEXICO

25 27N 8 W

I

30045239470000

Run Date :
Run Time:

CTOC -

GAS (mcf/mo)
OIL (bbls/mo)

1,000.
100.
100.
10.
1.

70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99

TIME (years)

Cross Timbers Oil Company

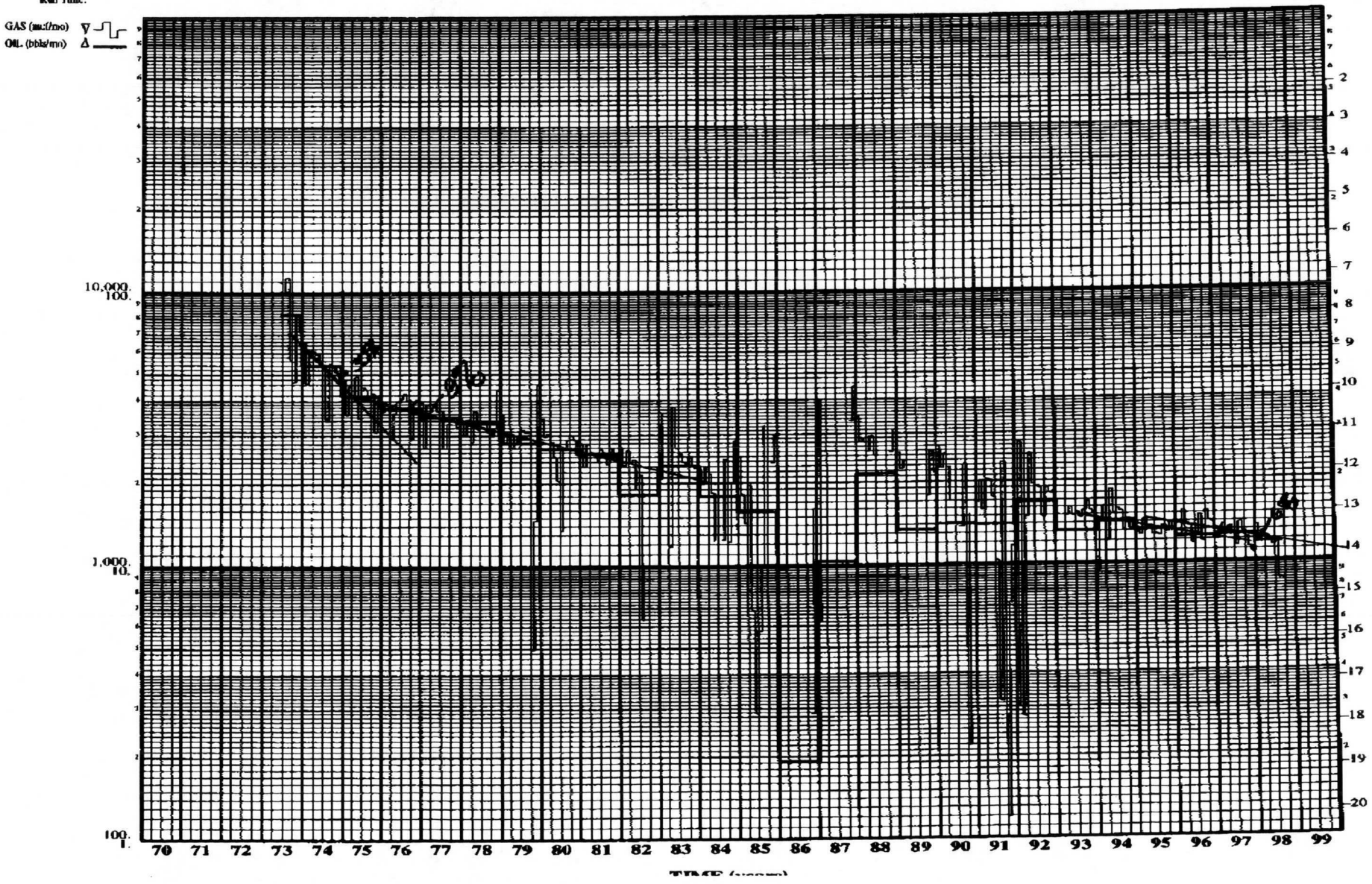
	Oil (bbls/mo)	Gas (mcf/mo)		Oil (bbls)	Gas (mcf)	Res_Cat	(1,000)
Qi	0	0	Gross Cum @**/**	0	684,391	Life	
Qel	0	0	Gross Remaining	0	0	As-of-Date	
Decline	0.0 %	0.0 %	Gross Ultimate	0	684,391	Setup file	
			Net Remaining	0	0	Q_Prod	
						Q_Owner	
						Q_Other	

		Oil Price ($/bbl)	Gas Price ($/mcf)	OPC ($/bbl)	Flat Life (years)	Last Production	Net Cash Flow	P.W. @ 0.0 %
WI -	0.000000 %	0.00	0.00	0.00	0.0	08/98	$ 0	$ 0
NRI -	0.000000 %							

Run Date :
Run Time:

FILAN 7
BURLINGTON RESOURCES OIL & GAS C
BLANCO SOUTH (PICTURED CLIFFS)
SAN JUAN, NEW MEXICO
5 27N 8 W
O
30045211770000

CTOC -



Cross Timbers Oil Company

	Oil (bbls/mo)	Gas (mcf/mo)
Qi	0	0
Qel	0	0
Decline	0.0 %	0.0 %

	Oil (bbls)	Gas (mcf)
Gross Cum. @**/**	0	114,954
Gross Remaining	0	0
Gross Ultimate	0	114,954
Net Remaining	0	0

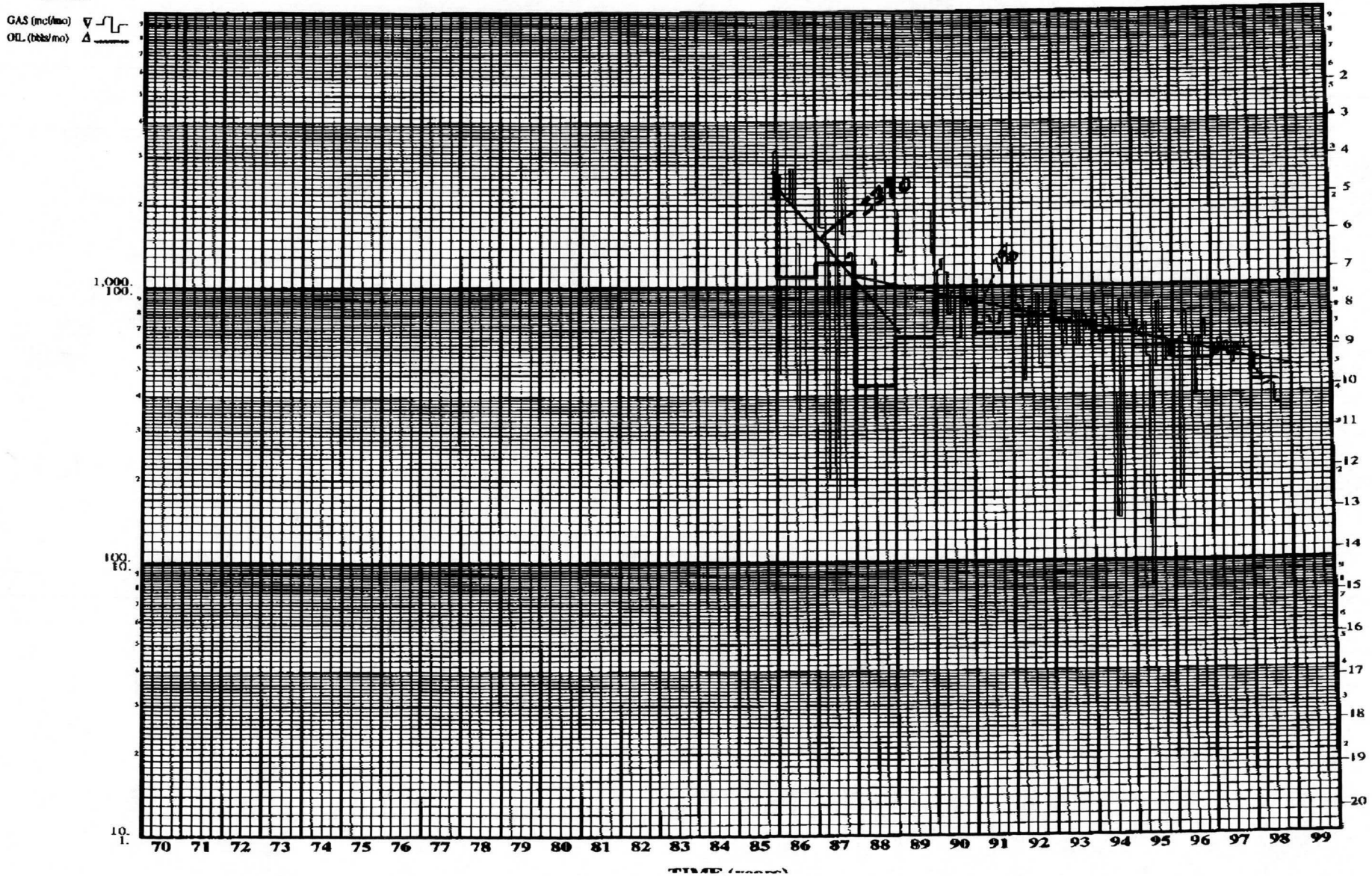
Rem. Cat. Life: 0.000
As-of-Date:
Setup file:
Q_Prod
Q_Owner
Q_Other

WI - 0.00000 %	Oil Price ($/bbl)	Gas Price ($/mcf)	OPC ($/bbl)	Flat Life (years)	Last Production	Net Cash Flow	P.W. @ 0.0 %
NRI - 0.00000 %	0.00	0.00	0.00	0.0	08/98	$ 0	$ 0

HOWELL F 3
BURLINGTON RESOURCES OIL & GAS C
BLANCO SOUTH (PICTURED CLIFFS)
SAN JUAN, NEW MEXICO
I 27 N8 W
N
30045264800000

Run Date:
Run Time:

CTOC -



Cross Timbers Oil Company

	Oil (bbls/mo)	Gas (mcf/mo)
Qi	0	0
Qel	0	0
Decline	0.0 %	0.0 %

	Oil (bbls)	Gas (mcf)
Gross Cum @ 01/00	0	297,740
Gross Remaining	0	0
Gross Ultimate	0	297,740
Net Remaining	0	0

Res_Cat. Life 0.000
As-of-Date
Setup file
Q_Prod
Q_Owner
Q_Other

		Oil Price ($/bbl)	Gas Price ($/mcf)	OPC ($/bbl)	Flat Life (years)	Last Production	Net Cash Flow	P.W. @ 0.0 %
WI -	0.000000 %	0.00	0.00	0.00	0.0	00/00	$ 0	$ 0
NRI -	0.000000 %							

Run Date:
Run Time:

HOWELL F 2
BURLINGTON RESOURCES OIL & GAS C
BLANCO SOUTH (PICTURED CLIFFS)
SAN JUAN, NEW MEXICO
I 27 N8 W
J
30045215220000

CTOC -