

TRIUMPH EXPLORATION, INC.

**TONTO EOR PROJECT
BY MICRO EMULSION FLOODING
SECTION 30, T-19-S, R-33-E
LEA COUNTY, NEW MEXICO**

EXHIBIT G

WATER ANALYSIS

(WATER ANALYSIS PASTED TO THIS SHEET)

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WATER ANALYSIS

WATER ANALYSIS REPORT
furnished by TRETOLITE CHEMICALS

COMPANY: WALLEN PRODUCTION
LEASE: TONTO
SAMPLE POINT: HEATER TREATER
SAMPLE DATE: 5-27-87
SAMPLE TEMP.:

pH: 6.5
H2S: 500
SPECIFIC GRAVITY: 1.025

TITRATED AND CALCULATED IONS

	MILLIGRAMS PER LITER	MILLIEQUIVALENTS PER LITER
HCO3	915.00	15.00
Cl	11210.00	315.77
SO4	1250.00	26.04
Ca	2800.00	140.00
Mg	0.00	0.00
Na	4986.78	216.82

IONIC STRENGTH = 0.44
TOTAL HARDNESS = 6000.0 mg/ltr.
TOTAL DISSOLVED SOLIDS = 21155.5 mg/ltr.
TOTAL IRON (Fe) = 3.0 ppm

PROBABLE MINERAL COMPOSITION AND ION PAIRING

	MILLIEQUIVALENTS PER LITER	MILLIGRAMS PER LITER
Ca(HCO3)2	15.00	1215.60
CaSO4	26.04	1772.66
CaCl2	98.96	5492.19
Mg(HCO3)2	0.00	0.00
MgSO4	0.00	0.00
MgCl2	0.00	0.00
NaHCO3	0.00	0.00
Na2SO4	0.00	0.00
NaCl	216.82	12675.08

CALCULATED SCALING TENDENCIES

SCALING INDEX

CaCO3 @ 80 DEG F. = 0.5
CaCO3 @ 120 DEG F. = 1.0

SATURATION POINT

CaSO4 @ 70 DEG F. = 1996.5 MG/LTR.
CaSO4 @ 110 DEG F. = 2020.2 MG/LTR.

(THIS SAMPLE CONTAINED 1772.7 MG/LTR. CaSO4)

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TABLE 1

QUATERNARY WELLS WITH POTABLE WATER

LOCATION	OWNER	ELEV.	WATER LEVEL	TOTAL DEPTH	USE OF WELL	CHEMICAL ANALYSIS (In Milligrams/Liter or Parts/Million)					DATE OF ANALYSIS	SAMPLED BY
						CHLORIDES	SULFATES	DISSOLVED SOLIDS	ELECTRICAL CONDUCTI- VITY	State		
NW/NW Sec 17 T19S R33E	Snyder Ranch	3650'	116' 1981	131'	Abd. Stock	In 1969 (reported good quality water)						State
SE NE/4 Sec. 26 T19S R33E	Smith		90.9 1/78	100'	Active Domestic Stock	298 326	996	2134	2560 --	11/17/65 1/16/78		State Reed
SE SE/4 Sec. 23 T20S R32E	Old Halfway Bar	3551'	36.7' 1981	78'	Abd. Dom.	362	309	--	1861	1969		Reed
NW NW Sec 25 T20S R32E	Smith?	3555'	39 1982	65'	Stock	85 42	82 -	-- --	837 750	1969 9/72		Reed State
NE/4 Sec 36 T20S R32E	Bingham Ranch	3501'	44' 1972	50'	Domestic	290	-	--	1930	9/18/72		State
SW/4 Sec 23 T20S R32E	-	3541'	39.8 1981	-	Stock	No Data						
SE NW/4 Sec 27 T20S R32E	S. Frey	3540'	23.9 1972	25'	Industrial	No Data	(Field check - fresh water)			5/12/82		Reed
SE NW/4 Sec 30 T20S R32E	-	3505'	9.94 1954	-	Stock	No Data						

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TABLE 2

QUATERNARY WELLS WITH NON POTABLE WATER

LOCATION	OWNER	ELEV.	WATER LEVEL	TOTAL DEPTH	USE OF WELL	CHEMICAL ANALYSES (In Milligrams/Liter or Parts/Million)					DATE OF ANALYSIS	SAMPLED BY
						CHLORIDES	SULFATES	DISSOLVED SOLIDS	ELECTRICAL CONDUCTI- VITY			
SW of SE/4 Scarbauer Sec 4 T20S R33E	Cattle Co.	3556'	33' 1968	58'	Abd. Stock	2,382 12,978	- 16,068	- -	10,175 -	11/17/65 10/24/68	State United Chem.	
NW NW Sec 21 T20S R33E	-	3536'	35' 1981	52'	Abd. Stock	3,518	905	-	-	10/24/68	United Chem.	
SE NW/4 Sec 12 T20S R32E	-	3540'	-	130'	Abd. Stock	9,744	1,878	-	-	1968	United Chem.	
NE SW/4 Sec 1 T20S R32E	Salt Lake Rch.	3510'	21.7 1954	30'	Abd. Stock	Reported Salty - 1954 and Dry in 1972					State	