

Walterthon C-4 Reserves

3/2/2004

Well Data: Reservoir Temperature (T): 180 F		Source Logs
Sw	.28	Calculated
Height 25 FT	25 FT	Source Log
Gas Gravity	.6	Source Approximated—Spencer A = .58 (Sec 30 T22S R27E)
Z@4900	1	Source HP41 Dranchuk, Purvis
Z@1754	.91	Source HP41 Dranchuk, Purvis
Z@ 400—abn	1	Source HP41 Dranchuk, Purvis
Porosity (θ)	.17	Source Log

Initial point 8/15/01

Initial pressure: 4900 Psig Source: 1.) ~ Normal Gradient Typical for area in the Morrow
 2.) Spencer A # 1 DST : BHP 4815 PSI @ 11400'
 3.) Flowing BHP on Walterthon @ 4850 PSI
 (C-105 3003 MMCFD. 3750 FTP converted to BHP – Cullender)

Second point (2/06/04)

Second Pressure: 1754 psig Source: 1.) Well site inspection showed 1200 psig with 3000 MCFD
 Converted to BHP with Cullender

$$2.) \text{ Darcy: } Q_g = \frac{.703kh(P_r^2 - P_{wf}^2)}{T U_g Z (L_n r_e/r_w)} \text{ Craft and Hawkins}$$

Cum Production:	Dwights:	2.379603 BCF	September 2003
	Forecast	.390 BCF	September 2003 – February 2004
	Cum Total	2.769603 BCF	Rounded to 2.8 BCF

$$G_p = G_i - G_{abn} = 43560(\theta)(1 - S_w)(B_{gi} - B_{gabn}) \quad \text{Craft and Hawkins}$$

$$B_g = \frac{34.61(P)}{ZT} \quad \text{Craft and Hawkins}$$

$$G_p = 43560 (\theta)(1 - S_w)(34.61)/T (P_i/Z_i - P_{abn}/Z_{abn}) \quad (\text{SCF/AC-FT})$$

$$G_p = 43560(.17)(.72)(34.61)/(180 + 460)(4900/1 - 400/1) \\ = 1,297,488 \text{ SCF/AC-FT}$$

$$GP = 4.2 \text{ BCF Source } P/Z \text{ plot}$$

$$1,297,488 \text{ SCF/AC-FT (X acres)(H ft)} = 4,200,000,000 \text{ SCF}$$

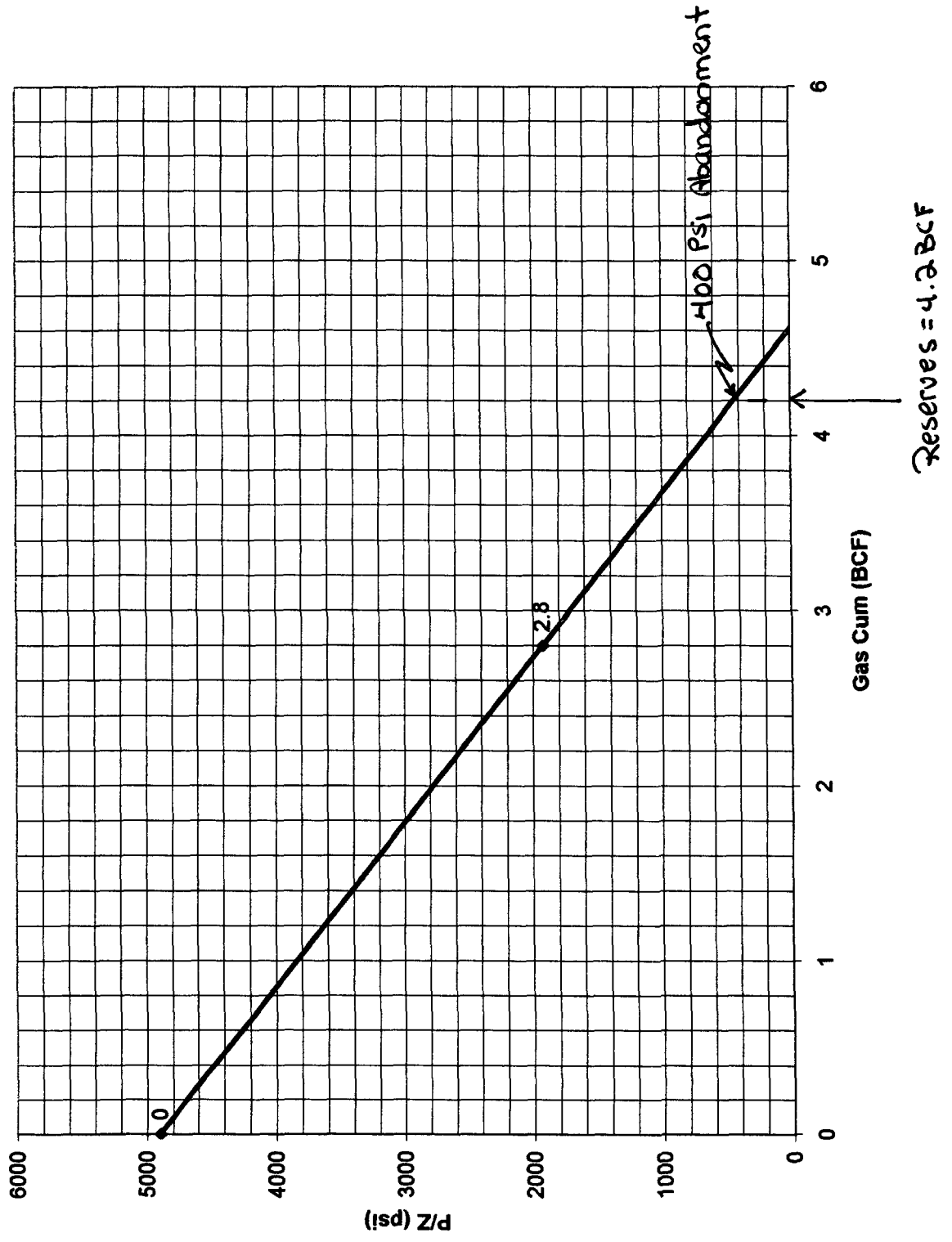
$$\text{Acres} = 4,200,000,000 \text{ SCF} / (1,297,488 \text{ SCF/AC-FT}) / 25 \text{ FT} \\ = 129.5 \text{ Acres}$$

THE C-4 ZONE CAN EXPECT TO CUM 4.2 BCF FROM 129.5 ACRES.

(2.8 BCF has already been Produced---1.4 BCF Remaining between Walterthon and Forni # 2.)

LIL CONSERVATION DIVISION
 CASE NUMBER
 TBI EXHIBIT NUMBER 8

Walterthor P/Z VS Gas Cum



Submit to Appropriate
District Office
State Lease - 6 copies
Fee Lease - 5 copies
DISTRICT I
P.O. Box 198C, Hobbs, NM 88240

DISTRICT II
P.O. Drawer CD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

Form C-105
Revised 1-1-89

CISF
Bum
Bum

WELL API NO. 30-015-31797
5. Indicate Type of Lease STATE FEE ☒
6. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG				
1a. Type of Well: OIL WELL GAS WELL ☒ DRY OTHER ☐			7. Lease Name or Unit Agreement Name WALTERTHON FEE	
b. Type of Completion: NEW WELL ☒ WORK OVER DEEPEN PLUG BACK DIFF RESVR OTHER			8. Well No. 1	
2. Name of Operator MARBOB ENERGY CORPORATION			9. Pool name or Wildcat CARLSBAD SOUTH MORROW	
3. Address of Operator PO BOX 227, ARTESIA, NM 88210				
4. Well Location Unit Letter <u>A</u> <u>860</u> Feet From The <u>NORTH</u> Line and <u>948</u> Feet From The <u>EAST</u> Line Section <u>21</u> Township <u>22S</u> Range <u>27E</u> NMPM <u>EDDY</u> County				
10. Date Spudded 06/14/01	11. Date T.D. Reached 07/25/01	12. Date Compl. (Ready to Prod.) 08/10/01	13. Elevations (DF & RKB, RT, GR, etc.) 3109' GR	14. Elev. Casinghead
15. Total Depth 11990'	16. Plug Back T.D. 11902'	17. If Multiple Compl. How Many Zones?	18. Intervals Drilled By Rotary Tools ☒ Cable Tools	
19. Producing Interval(s), of this completion - Top, Bottom, Name 11888' - 11898' & 11732' - 11750' MORROW				20. Was Directional Survey Made No
21. Type Electric and Other Logs Run DLL, CSNG				22. Was Well Cored No

23. CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT LB/FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	48#	401'	17 1/2"	425 SX	CIRC 43 SX
9 5/8"	36#	1755'	12 1/4"	600 SX	CIRC 73 SX
7"	23#	9032'	8 3/4"	1600 SX	CIRC 178 SX
4 1/2"	11.6#	11990'	6 1/8"	300 SX	

24. LINER RECORD				25. TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 3/8"	11593'	

26. Perforation record (interval, size, and number) 11888' - 11898' (66 SHOTS) 11732' - 11750' (114 SHOTS)	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED
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28. PRODUCTION							
Date First Production 08/14/01		Production Method (Flowing, gas lift, pumping - Size and type pump) FLOWING				Well Status (Prod. or Shut-in) P	
Date of Test 08/15/01	Hours Tested 24	Choke Size 11/64"	Prod'n For Test Period	Oil - BbL. 6	Gas - MCF 3003	Water - BbL. 0	Gas - Oil Ratio
Flow Tubing Press. 3750	Casing Pressure 150	Calculated 24-Hour Rate	Oil - BbL.	Gas - MCF	Water - BbL.	Oil Gravity - API - (Corr.)	
29. Disposition of Gas (Sold, used for fuel, vented, etc.) SOLD						Test Witnessed By SHANE GRAY	

30. List Attachments LOGS, DEVIATION SURVEY
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31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief			
Signature <u>Diana J. Cannon</u>	Printed Name DIANA J. CANNON	Title PRODUCTION ANALYST	Date 08/24/01

20401

COUNTY EDDY, NEW MEXICO FIELD S. CARLSBAD (MORROW)
 OPR CITIES SERVICE OIL COMPANY
 LSE SPENCER "A" WELL NO. 1
 LOC Sec 30, T-22-S, R-27-E (0)
660 FSL & 1980 FEL of Section

UNIQUE NO. 30-015-20401

MAPS _____ CO-ORD _____
 F. R. 3-31-71 OBJ 11,800' RT SPUD 3-30-71
 CTR Cactus LAHEE CLASS _____ ELEV D. F. 3199' *
 LOGS _____ SPLS _____ GL _____
 TD 11,820' PBD 11,764' ABD LOC. _____ P & A _____

PAY ZONE	PROD INTERVAL	IP	BO	W	HRS	CHK	TEST BASIS
Strawn	10413-429	SI	GAS WELL				
Morrow	11401-470	COF	19,250,000	CFGPD			
GOR	GTY	CP	SI TP	BHP	POT DATE	TREATMENT	
					8-1-71	A/5500	
drv	.583		3812		6-25-71	A/8000	
CSG	13 3/8 - 353 - 380		7 - 10609 - 380				
	9 5/8 - 5299 - 2160		5 L - 10504-11808 - 110				

COUNTY EDDY, NEW MEXICO FIELD S. CARLSBAD (MORROW)

WELL: CITIES SERVICE #1 SPENCER "A"

ELEV 3199' *-DF

DATE	WELL RECORD	REACHED T. D.	SPL (LOG) MARKERS
	TD 11,820' PB 11,764' Drlg break @ 9706		Del Lm (1830)
	Drlg Brk 10,418-436, Lost 900 BM @ 9706		Del Sd (1990)
	DST 10414-444 (Strn) 1500' WB, Op 1'45"		Cherry Cany
	WBTS 7", GTS 10", Gas @ 7,536,000 CFGPD		(2690)
	SFP 1400, 30/64"ck, Rev-out 560' cond		B.S. (5300)
	Gty 56, 90"ISIP/5405, FP 1302-1995, 90"		1st B.S. Sd
	FSIP/4762		(6288)
	Drlg Brk 11454-465 & 11470-481		3rd B.S. Sd
	DST 11385-485 (Morrow) 2000' WB, Op 2'20"		(8392)
	GTS 7", SFP 500, Gas @ 7,848,000 CFGPD		Wlfc (8775)
	21/64"ck, SFP 3525, Rec 30' OF, 90"ISIP		Strn (10311)
	4815, FP 4516-4578, 2'FSIP/4815, HP		Atoka (10640)
	5586-5586		Morrow (10821)
	PB 11,764'		Chester
	Pf. (Strn) 17/10413-429		(11772)
	Swbd 39 BL, 4', sli show gas, 12' SITP		1200#
	A/4500, Swbd & Flwd 2,100,000 CFGPD +		
	60 BLW, 4', 28/64"ck, FTP 1000#, 12',		
	SITP 2750#		
	Flwd 1,500,000 CFGPD, 10 BL, 5', 21/64"ck FTP 750#		