

BASIN DRILLING CORP.

650 LAKE POINTE TOWERS WEST • 4013 NORTHWEST EXPRESSWAY • OKLAHOMA CITY, OKLA. 73116 (405) 840-2911

BASIN DRILLING CORP.

DEVIATION SURVEY

TEXACO INC. - S.A. BOWMAN FEDERAL #4
Section 29-19S-32E, Lea County, NM

DATE	DEPTH	DEGREE
12/01/87	500'	1/2
12/09/87	928'	3/4
12/10/87	1,405'	1./2
12/10/87	1,905'	2
12/11/87	2,159'	3
12/11/87	2,254'	3
12/11/87	2,442'	2 3/4
12/13/87	2,944'	2
12/17/87	3,818'	1
12/18/87	4,309'	1/2
12/18/87	4,822'	1/2
12/19/87	5,320'	3/4
12/19/87	5,810'	3/4
12/21/87	6,850'	1

SIGNED BY:

TITLE: Drilling Cost Analyst

CORPORATION ACKNOWLEDGMENT

STATE OF OKLAHOMA)
COUNTY OF CANADIAN)

On this 3rd day of February, 1988, before me, the undersigned, a Notary Public, in and for the County and State aforesaid, personally appeared Pete Martin to me known to be the identical person who signed the name of the maker thereof to the within and foregoing instrument as its Drilling Cost Analyst and acknowledge to me that he executed and same as his free and voluntary act and deed of said corporation, for the uses and purposes therein set forth.

Glevely J. Thousan

Given under my hand and seal the day and year last above written.

My Commission Expires:

11/18/90

Ferm 31605 (November 1983)	Ur TED ST		(() * *	ATE*	- erm apploved. Budget Burcan I Expires August		
(Formerly 9-331)	DEPARTME OF T BUREAU OF LAND	Ni i	UK, verse side)	5. 1	LC-063586		
	RY NOTICES AND rm for proposals to drill or to Jse "APPLICATION FOR PERI				IF INDIAN, ALLOTTEE	OR TRIBE NAME	
1.	1			7.	UNIT AGREEMENT NA	71 E	
WELL WELL 2. NAME OF OPERATOR	OTHER			8. 1	FARM OR LEASE NAM	r -	
Texaco Inc. 3. ADDRESS OF OPERATOR					S. A. Bowman	Federal	
4. LOCATION OF WELL (Repo See also space 17 below.	bs, New Mexico 88 ort location clearly and in account		State requirements.	10.	FIELD AND POOL, OR		
Unit Letter N, 990' FSL and 1659' FWL					Lusk Delaware, West 11. SEC., T., B., M., OR BLK. AND SURVEY OR AREA		
14. PERMIT NO. 15 ELEVATIONS (Show whether DF, RT, GR, etc.)					Sec. 29, 19S, 32E 12. COUNTY OR PARISH; 13. STATE		
30-025-30164	3564'	KB 3552' (GR		Lea	NM	
16.			ature of Notice, Report,	or Other	Data		
NOT	TICE OF INTENTION TO:	!			REPORT OF:		
TEST WATER SHUT-OFF	PULL OR ALTER CA	SING	WATER SHUT-OFF		REPAIRING W	ELI.	
FRACTURE TREAT	MULTIPLE COMPLE	TE	FRACTUBE TREATMENT		ALTERING CA		
SHOOT OR ACIDIZE	ABANDON*		SHOOTING OR ACIDIZING		ABANDONMEN	T*	
REPAIR WELL (Other)	CHANGE PLANS		(Other)		ompletion ultiple completion o	Well X	
17. DESCRIBE PROPOSED OR CO	OMPLETED OPERATIONS (Clearly ell is directionally drilled, give	state all pertinent	Completion or Rec	completion	Report and Log form	m.)	
Test DV too Test 5 1/2" 2) Spot 10% ac 3) Perforate t 4) RIH with pa 6428'-6439' 3000 psig I 5) Ran Base GR HPG gelled ISIP 1500 p 6) POH with tu 7) Pump 50 gal casing. Fl well on pro	ng unit. Install Ed to 1500 psig-OK. Casing to 1500 psig-OK. Casing to 1500 psigthe 5 1/2" casing whicker and 2 7/8" to with 2500 gallons SIP 1500 psig. Flat. Sand fract he parameter and 3 sig. After Frace Stabing and packer. Hons of Halliburto such with 101 bbls. Eduction. 1988, 24 hour OPT	Drill cersig from 11 60'-6450'. with 2 JSPF abing. Set sof 15% NEI cowed and subjects at 64:30,000# of 2 Survey indicates well on's Hyflow of lease of 16 signs of 16 sec.	ment from 6465'-66:30 PM to 12:00 Mi Run GR-CCL from 6,33/8"casing guns, packer at 6292'. FE acid and 23 bal wabbed back load w 28'-6439' with 20, 20/40 sand. 10 BP cated major frac 6 on pump. Pump 11 III in 100 bbls. crude. Shut-in ov	dnight 000'-6 from 6 Acidi ls. 4 ater. 000 ga M at 2 428'-6 days. lease e	PBTD 6650'. , 12/30/87. 545'. 428'-6439' (ze perfs BPM at 1800 11ons of 30# 600-3550 psi 468'. crude down t. Place)- .g.	
1 ,	foregoing is true and correct		397-3571		<u> </u>		
SIGNED YAK	ead	TITLE Hob	bs Area Superinten	dent	DATE 2/3	8/88	
(This space for Federal of	or State office use)	TITLE	/	400291	DATE	030	
CONDITIONS OF APPRO	OVAL, IF ANY:				EB 2 51988		
	* S	ee Instructions	on Reverse Side	······································	Ş	چەمر ئامر ۋالان	
			Ę	Jan Barrell	eu, ausi dic	Allele	

Market Octobrick

Form 3160-5 (November 1983) (Formerly 9-331) DEPARTME OF THE INTERMANAGEME BUREAU OF LAND MANAGEME SUNDRY NOTICES AND REPORTS (Do not use this form for proposals to drill or to deepen or plugues "APPLICATION FOR PERMIT—" for such	NEOX 130 BS. NEW MEXICO P G IF INDIAN, ALLOTTE OR TRIBE NAME ON WELLS
I. OIL V GAS	7. UNIT AGREEMENT NAME
WELL, WELL OTHER 2. NAME OF OPERATOR	8. FARM OR LEASE NAME
Texaco Inc. 3. Al Press of OPERATOR	S. A. Bowman FeD.
PO Box 728, Hobbs, New Mexico 882 4. LOCATION OF WELL (Report location clearly and in accordance with an See also space 17 below.) At surface	
Unit Letter N, 990 FSL & 1659 FWL	Lusk Delaware, West 11. SEC., T., B., M., OR BLK. AND SURVEY OR AREA
14. PERMIT NO. 15 ELEVATIONS (Show whether	Sec. 29, T19S, R32E DF, RT, GR, etc.) 12. COUNTY OR PARISH 13. STATE
3552' GL	Lea NM
	Nature of Notice, Report, or Other Data
NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF PULL OR ALTER CASING FRACTURE TREAT MULTIPLE COMPLETE SHOOT OR ACIDIZE ABANDON* REPAIR WELL CHANGE PLANS	WATER SHUT-OFF BEFAIRING WELL FRACTURE TREATMENT SHOOTING OR ACIDIZING ABANDONMENT*
(Other)	(Other) Drilling X (Note: Report results of multiple completion on Well
17. DESCRIBE PROPOSED OR COMP. ETED OPERATIONS (Clearly state all pertin proposed work. If well is directionally drilled, give subsurface lonent to this work.) •	(completion or Recompletion Report and Log form.) ent details, and give pertinent dates, including estimated date of starting any cations and measured and true vertical depths for all markers and zones perti-
Ran 22 jts. (916') 11 3/4	at 6:45 PM, 12/8/87 ", 42#, H-40, ST & C casing, set at 928' ", 32#, J-55 & S-80, ST & C casing,
2650' GR/MSFL/DLL 6850' to 382	GR/CAL/LTD 6850' to 3824', GR/CNL 5850'- 4', no problems logging. 7#, L-80, 15.5#, J-55, ST & C casing,
set at 6850'.	
3) Cement 1st stage with 1150 sx: Circulate 47 sxs.	s. Class "H" 1/4# flocele 0.6% Halad-9.
4) Cement 2nd stage with 350 sxs.	HLW with 1/4# flocele and 250 sxs.
Class "H" with 2% CaCl, circula 5) TD 6850'. ND BOP. NU and tes 6) Release Basin Rig #7 at 2:00 PM	t wellhead to 3000 psi.
A , ()	-3571 obbs Area Superintende nt 1/13/83
(This space for Federal or State office use)	ACCEPTED FOR RECORD
APPROVED BY TITLE CONDITIONS OF APPROVAL, IF ANY:	DATE
	FEB 1 1988

*See Instructions on Reverse Side

SOS CARLSBAD, NEW MEXICO

(N)	TED STATES SHAPE IN THE CATES OF THE INTERIOR OF STREET OF THE CATES O	Budget Expire 5 LEASE DES	Date of N 1991-1 s August 1, 1985 signation and serial
_	SUNDRY NOTICES AND REPORTS ON WELLS (Decret on this form of proposulation for for deepen or plug back to a different reservoir. (Se "APPLICATION FOR PERMIT" of for such proposals.)	6 IF INDIAN.	ALLOTTEE OR TRIBE NAM
ī	ore X - AS	7. UNIT AGRE	EMENT NAME
2.	WELL TO A TOLL IN OTHER NAME OF OPERATOR	8. FARM OR I	CRASE NAME
	Texaco Inc.	S. A.	Bowman dec
4.	PO Box 728, Hobbs, New Mexico 88240 LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below; At surface		D POOL OR WILDCAT
	Unit Letter N, 990 FSL & 1659 FWL	11. SEC., T., I SURVEY	Delaware, Wes
14.	PERMIT NO 15 ELEVATIONS (Show whether DF, RT, GR, etc.)	Sec.	29, 19S, 32E
	3552' GL	Lea	NM
16.	Check Appropriate Box To Indicate Nature of Notice, Report, or O	ther Data	
	NOTICE OF INTENTION OF	ENT REPORT OF	' :
17. i	FRACTURE TREAT NULCIPLE COMPLETE FRACTURE TREAT NULCIPLE COMPLETE FRACTURE TREATMENT SHOOTING OR ACIDIZE REPAIR WELL CHANGE PLANS (Other) DESCRIBE PROPOSED OR COMPLETE DEFERATIONS (Clearly State all pertinent details, and give pertinent dates, proposed work If well is directionally drilled, give subsurface locations and measured and tree vertical	and AB Drill of multiple contion Report an	mpletion on Well d Log form.)
	Spud 14 3/4" hole at 6:45 PM, 10/8/87	depths for al	l markers and zones per
1) 2)	Cement with 1000 sxs. Class "H" 2% CaCl 1/4# floceld 12/9/87. Circulated 396 sxs.	e. P. 1	D. 4:45 PM,
 3) 4) 	Held OK.		1000 psig.
	3842'.		
5)6)7)8)	0.6% Halad 9, cement with no returns. P. D. inflate Broke circulation with 74 bbls. Pump 155 bbls. and Pump 100 sxs. Class "H" flocele thru DV over displace 8 1/4 hours. Broke circulation with 90% returns. Ran temp. survey. TOC 125'.	e ECP. lost reced 5 bl	Open DV too eturns. ols. WOC
·	Held OK.		oo parg.
	SIGNED Jo Head TITLE Hobbs Area Superintend	den+	12/21/87
	This space for Federal or State office use)	DATE _	12/21/01
			OR RECORD
	CONDITIONS OF APPROVAL, IF ANY:	JAN -	7 1988

*See Instructions on Reverse Side

SJS CARLSBAD, NEW MEXICO

30-025-30164

Budget Bureau No. 1004-0136

DATE 11-2487

Form 3160-3 (November 1983) (formerly 9-331C)

(This space for Federal or State office use)

CONDITIONS OF APPROVAL, IF ANY:

PERMIT NO.

Other instructions on ED UNITED STATES reverse side)

Form approved.

Expires August 31, 1985

DEPARTMENT OF THE INTERIOR 5. LEASE DESIGNATION AND SERIAL NO. BUREAU OF LAND MANAGEMENT 1C-063586 6. IF INDIAN, ALLOTTES OR TRIBE NAME APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK 1a. TTPE OF WORK 7. UNIT AGREEMENT NAME DRILL X PLUG BACK DEEPEN b. TIPE OF WELL MULTIPLE ZONE SINGLE SONE WELL X WELL S. FARM OR LEARS NAME OTHER 2. NAME OF OPERATOR S. A. Bowman Federal 9. WHILL NO. Texaco Inc. 3. ADDRESS OF OPERATOR 10. PIBLD AND POOL, OR WILDCAT P. O. Box 728, Hobbs, New Mexico, 88240 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*) Lusk Delaware, West At surface 990' FSL & 1659' FWL (Unit Letter N) 11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA At proposed prod. sone Same Sec. 29, T-19-S, R-32-E12. COUNTY OR PARISH | 13. STATE 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE. NM 6 Miles Northwest of Halfway, New Mexico Lea 15. DISTANCE FROM PROPUSED* 16. NO. OF ACRES IN LEASE 17. NO. OF ACRES ASSIGNED TO THIS WELL LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig, unit line, if any) 80 40 330 19. PROPOSED DEPTH 20. ROTARY OR CABLE TOOLS 18. DISTANCE FROM PROPOSED LOCATIONS TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 68501 Rotary 1st well 22. APPROX. DATE WORK WILL START® 21. ELEVATIONS (Show whether DF, RT, GR, etc.) December 1, 1987 3552' GR 23. PROPOSED CASING AND CEMENTING PROGRAM WEIGHT PER FOOT SETTING DEPTH QUANTITY OF CEMENT SIZE OF HOLE SIZE OF CABING 40' 24" 20" 94# Redimix to Surface 15" 11-3/4" 950' 42# 1000 sxs CIRCULATE 11" 8-5/8" 32# & 36# 3800' 1400 sxsCIRCULATE 5-1/2" 6850' 7-7/8" 15.5# & 17# 1350 sxs CEMENTING PROGRAM 1000 sxs. Class "H" with 1/4# Flocele and 2% CaCl (15.6 ppg, 1.18 cuft/sx, SURFACE CASING: 5.2 gal wtr/sx) INTERMEDIATE CASING: First Stage: 400 sx Class "H" with 10# Gilsonite & 1/2# Flocele (15.6 ppg, 1.24 cuft/sx, 5.2 gal wtr/sx) Second Stage: 800 sx HLW with 15# salt & 1/4# Flocele (12.7 ppg, 2.10 cuft/sx, 11 gal wtr/sx) followed by 200 sx Class "H" w/1/4# Flocele (15.6 ppg, 1.18 cuft/sx, 5.2 gal wtr/sx). DV tool @ 2800' w/ECP below. PRODUCTION CASING: 500 sxs. Light Weight cement with 1/4# Flocele (12.4 ppg, 1.99 cuft/sx, II gal wtr/sx), followed by 850 sx Class "H" with 1/4# Flocele (15.6 ppg, 1.18 cuft/sx, 5.2 gal wtr/sx). There are no other wells in this 1/4 1/4 section. IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive sone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any. 24 L. J. SEEMAN 11/10/87 Dist. Petr. Engr. TITLE

*See Instructions On Reverse Side

TITLE

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT

330 660

90 1370 16 NO 1984 2510 2640

2000

1500

IL CONSERVATION DIVISI P. O. BOX 2088 SANTA FE, NEW MEXICO 87501

Form C-102 Revised 10-1-78

es must be from the outer boundaries of the Section.

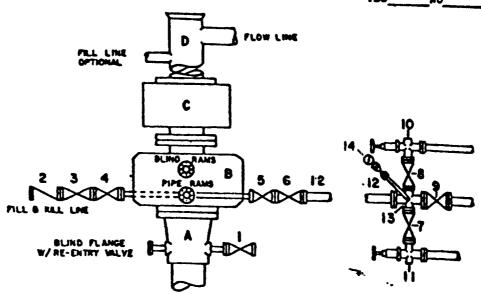
		All distances must be	Leas	•			·	Well N	lo.
TEXACO INC.				S. A. Bowman Federal				4	
Unit Letter Section Township		1	Nange		County			 ,	
N	. 29	19-S		32-E		I	Lea		
	Actual Footage Location of Wells								
990	feet from the	South line on	đ	1659'	fret	from the	We	st line	
Ground Level Elev.	Producing For		Pool					Dedicated Ac	reage;
3552'	Bru	shy Canyon		Lusk	Del	aware	,West		40 Acres
	1. Outline the acrenge dedicated to the subject well by colored pencil or hachure marks on the plat below.								
	an one lease is droyalty).	dedicated to the w	ell, out	line each an	id iden	tify the	ownership th	ercof (both	as to working
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?									
Yes	No If an	nswer is "yes;" type	of con	solidation _		· · · · · · · · · · · · · · · · · · ·			
this form i	necessary.)	owners and tract de							
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.									
								CERTIFICA	тюн
· .	i			1		l	I hereby c	ertify that the	Information con-
	1]	-	1		1	tained her	ein is true ond	complete to the
	1						best of my	knowledge on	nd belief.
					- -		Nome B. L. Ei	lland	
				1			Position Division	Surveyo	c
	ļ.			1	•		Compony Texaco		
	i	·		į			Date	ine.	
	l		•	1			October	28, 19	87 .
				 					
		o ⁵		i			1	Ť	he well location
	34.			l I			1		plotted from field made by me or
				j 1		l		-	nd that the same
	K			į		1	1	nd correct to and belief.	the best of my
							1	1377777	
1659	- 4	<u>E</u>					JIGEO L	ARU SUNI	·
i		. .				j	Dejo.Survey	er 19 0	3 987
	·o	5		1			Registered F	infefatoret E	uglneer
	66	E		 			13.8	88	
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Libert Transition	,							4386	

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RECEIVED NOV OCO CENCE

DRILLING CONTROL CONDITION III-2000 PSI WP

H₂S TRIM REQUIRED YES____NO___



DRILLING CONTROL

MATERIAL LIST - CONDITION 111

- A Texaco Wellhead
- B 30000 W.P. Dual ram type preventer, hydraulic operated with 1" steel, 30000 W.P. control lines (where substructure height is adequate, 2-30000 W.P. single ram preventers may be utilized with 30000 W.P. drilling aposl with 2" minimum flanged outlet for hill line and 3" minimum flanged outlet for choke line. The drilling speel is to be installed below the single ram type preventers.)
- 3000f W.P. Annular Preventer with 1" steel, 3000f W.P. centrel lines
- D Bell Hipple with flowline and fill-up outlets (hill line may also be used for fill-up line.)
- 1,3,4. 2" minimam 3000f W.P. flanged full opening steel gate 7,8 valve, or Halliburton Lo Torc Plug walve
- 2 2" minimum 3000f W.P. back pressure value
- 5,6,9 3" minimum 30000 W.P. flanged full opening steel gate valve, or Halliburton to Yorc Plug walve
- 12 3" minimum Schedule BO, Grade B, seamless line pipe
- 2" minimum z 3" minimum 3000# W.P. flanged cross
- 10,11 2" minimum 30006 W.P. adjustable choke bodies
- 14 Cameron Hud Gauge or equivalent (location optional in Choke line.)

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EXHIBIT D

88-61-1 Sosid