

1)	Date:	March	14	, 19	83
2)	Operator's				

		47 0	70
2)	Operator's Well No.	Hardy	11.
'			South.

- Memory Co	XXXXXX
	Permit

DRILLING CONTRACTOR:

Clint Hu	ırt &			TATE OF WEST VI		ON office of suc he	(B) and of the
Associat	es, Ir	ic.				ans natural cente	
ing to nothern			and which are no	udign pelieus.	org y familia y		a the wel
4) WELL TYP	E: A Oil	dayit tay				bifuotatehas sky	
	B (If "	Gas", Produ	ction X	_/ Underground st	orage	_/ Deep	/ Shallow X_/)
5) LOCATION	l: Elevat	ion: 0	100.05	Watershed:	Painter B	ranch of Ch	nerry Fork
O WELLOPE	Distric	int Hu	rt & Assoc	County:	Putnam	Quadrangle:	Bancroit
Address	Po	st Off	ice Box 38	8	Address	AGENT I. Day	Office Box 388
Tidal CSS			W.Va. 25		Address 18 KI	The state of the s	ew. W.Va. 25071
7) OIL & GAS						tell is located	Wildre W
			Hardy, et.			TOR Not op	erated
Address			pt. Kanawh W.Va. 253		ankAddress	Biotoside di Titi W	is telephone
Acreage		acres			) COAL OWNER	OVEN SWITTLE DECL AD	ATION ON PECOND
			Randolph		Name	K(5) WITH DECLAR	ATION ON RECORD:
Address			ox 145-A	17011   21	Address	DELB TOTAL TORSES	CHESTIA VIA
			rg, VA 23	805			fanoitgO (0
Acreage	76	3/4 a	cres		Name	To resident to a	-255 252 (1)
9) FIELD SAL	If the last day is the last the same	the call the	D. 1.		Address		27 T 400 C 17 T 400 C 17 T 17
Address			son Pipeli		2 F	the starting of the land	IO-IEO T
10) OIL & GAS				on, wv 23b		WITH DECLARAT	ION ON RECORD:
Name		th But			NameAddress		0 78/1 0 0 - [21 to \$1
Address			le, WV 25	504	SUBTRICES IN	ognans at Elyen	13) WOLK IN
		: 736		t of the work tol		the office to Strathes	dra stollyr
15) PROPOSED	WORK:		/ Drill deeper_			ture or stimulate	V EmpH
					ew formation	ed forms/on for	16 Auticipal
			cal change in well (sp			(E1092) K	tipo the tit
			ion, <u>Devo</u>			domest restrict	or street (8)
			Fresh, 1		salt, 1900		noitevels
						area? Yes	/ No Y /
20) CASING AN							The state of the s
CALL STATE OF STATE O	II		A CONTRACTOR OF FREE	d .		casing program	
CASING OR TUBING TYPE	Size	SPECII Grade	Weight   New Used	FOOTAG For drilling	Left in well	CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
Conductor	10 3/	4	Х	250	250	To surfac	emds125 sax
Fresh water	n one war	medw via	district at di cou	di polinicioni	To want off 1	no homosepusel	NEAT
Coal	distribus.	sma lauto	en and united the	leases or pilies	Any selfusor by	lo moi sodigrabia	Sizes
Intermediate	7		X	2050	500	75 sax=43	
Production	43	in ada dilir	M 40 X 10 M	bakal mans nobe	4125	175  sx.=2	1000s sfeet
Tubing	2 3/8				4000	also te floctori ista	m -
Liners		- 383 IX	Do to bead total	LAS TO LEGISTAC	T VHEVOTSELT	SERODEREDION TEMP	Perforations:  Top Bottom
		Committee of the Commit					
					.(a)ti	The bits with	IS GULLY (S.S. III)
in <del>od 120m S.V</del>	of Form	out copies	he or gira, and A	tad selivora es	ilivio ize nina	person of the Same	23) Perulat
21) EXTRACTION	ON RIGHTS	out coffee Repulatio	he or ghial and S	that selivon es	tile (a. 10 mins). Tile (a. 10 mins) (a. 10	error and 22 con	23) Regular
Check and pr	rovide one o	f the following	ng: other security of	in her that set u	ite). companied by galatien(12, or	on Vice and and and an October 19 of the October	23) Regulation of the Country of the
Check and pr	rovide one o	f the followings or leases of	ng: or other continuing co	ontract or contracts	by which I hold the	right to extract oil or	Black to the state of the state
Check and provided Included The re	rovide one o led is the lead equirement o	f the following the or leases of Code 22-4-	ng: other security of	ontract or contracts	by which I hold the	right to extract oil or	Black to the state of the state
Check and principal Included The results of the results of the right to	rovide one o led is the lease equirement o PROVISION o extract, pro	f the following or leases of Code 22-4-S duce or mark	or other continuing of 1-(c) (1) through (4).	ontract or contracts (See reverse side for	r specifics.)	ct or contracts providi	gas.
Check and price of the control of th	rovide one o led is the lease equirement o PROVISION o extract, pro sion for com	f the following the or leases of Code 22-4-S duce or mark appensation to	or other continuing continuing continuing (4).  1-(c) (1) through (4).  tet the oil or gas based the owner of the oil	ontract or contracts (See reverse side for	r specifics.)	ct or contracts providi	Island (EC
Check and price of the control of th	rovide one of led is the lead equirement of PROVISION of extract, prosion for commarketed?	f the following the following for the following for the following following for the following following following for the following foll	or other continuing of 1-(c) (1) through (4). Set the oil or gas based to the owner of the oil	(See reverse side for dupon a lease or other lor gas in place wh	r specifics.) r continuing contra ch is not inherently	ct or contracts providing related to the volume	gas.
Check and pi XX Includ The re  22) ROYALTY F Is the right to similar provis produced or similar provises and similar provises are simil	rovide one o led is the least equirement of PROVISION of extract, pro- sion for com- marketed? ve is No, no- pies (See rev.	f the following se or leases of Code 22-4-S duce or mark appensation to Yes Nothing additionerse side.)	or other continuing condition (1-(c) (1) through (4).  tet the oil or gas based the owner of the oil of $\overline{XX}$ nal is needed. If the	ontract or contracts (See reverse side for d upon a lease or other l or gas in place what answer is Yes, you re	r specifics.)  r continuing contra  ch is not inherently  nay use Affidavit F	ct or contracts providing related to the volume orm IV-60.	gas.  ng for flat well royalty or any the of oil or gas so extracted,
Check and pu XX Includ The re  22) ROYALTY F Is the right to similar provis produced or ff the answer abov  23) Required Cop  4) Copies of this	rovide one o led is the least equirement of PROVISION of extract, pro- sion for com- marketed? ve is No, no- pies (See rev- s Permit App	f the following se or leases of Code 22-4-S duce or mark appensation to Yes Nothing additionerse side.)	or other continuing co	ontract or contracts (See reverse side for dupon a lease or other lor gas in place what answer is Yes, you red reclamation plan h	r specifics.)  r continuing contra ich is not inherent!  nay use Affidavit F  ave been mailed by	ct or contracts providing related to the volume orm IV-60.	gas.  In a side of the well royalty or any the of oil or gas so extracted, the state of the stat
Check and pi XX Includ The re  22) ROYALTY F Is the right to similar provis produced or ff the answer abov  23) Required Cop  4) Copies of this	rovide one of led is the lead equirement of PROVISION of extract, prosion for commarketed? We is No, not pies (See reves Permit Appreparator, coal	f the following see or leases of Code 22-4-S duce or mark appensation to Yes Nothing additionance side.)	or other continuing co	ontract or contracts (See reverse side for dupon a lease or other lor gas in place what answer is Yes, you red reclamation plan h	r specifics.)  r continuing contra ich is not inherent!  nay use Affidavit F  ave been mailed by	ct or contracts providing related to the volume orm IV-60.  registered mail or delay of this Permit Applie	gas.  In a solution of flat well royalty or any see of oil or gas so extracted, solution of the extraction to the Department of
Check and pu XX Includ The re  22) ROYALTY F Is the right to similar provis produced or produced or produced or produced or provided the similar provise produced or produced	rovide one of led is the lead equirement of PROVISION of extract, prosion for commarketed? We is No, not pies (See reves Permit Appreparator, coal	f the following see or leases of Code 22-4-S duce or mark appensation to Yes Nothing additionance side.)	or other continuing co	ontract or contracts (See reverse side for dupon a lease or other lor gas in place what answer is Yes, you red reclamation plan h	r specifics.)  r continuing contra ich is not inherently hay use Affidavit F ave been mailed by mailing or delivery CLIM	ct or contracts providing related to the volume orm IV-60.  registered mail or delay of this Permit Applies	gas.  In go of oil or gas so extracted,  In general to the above cation to the Department of
Check and pu XX Includ The re 22) ROYALTY F Is the right to similar provis produced or produced or ff the answer abov 33) Required Cop 4) Copies of this named coal o Mines at Char Notary:	rovide one of led is the least equirement of PROVISION of extract, prosion for commarketed?  ve is No, not pies (See revisible Permit Apprenator, coanteston, Wes	f the following see or leases of Code 22-4-S duce or mark appensation to Yes Nothing additionance side.)	or other continuing co	ontract or contracts (See reverse side for dupon a lease or other lor gas in place what answer is Yes, you red reclamation plan h	r specifics.) r continuing contra ich is not inherently nay use Affidavit F ave been mailed by mailing or delivery	ct or contracts providing related to the volume orm IV-60.  registered mail or delay of this Permit Applie	gas.  In a side of a side
Check and pu XX Includ The re  22) ROYALTY F Is the right to similar provis produced or produced or produced or produced or provided the similar provise produced or produced	rovide one of led is the least equirement of PROVISION of extract, prosion for commarketed?  ve is No, not pies (See revisible Permit Apprenator, coanteston, Wes	f the following see or leases of Code 22-4-S duce or mark appensation to Yes Nothing additionance side.)	or other continuing co	ontract or contracts (See reverse side for dupon a lease or other lor gas in place what answer is Yes, you red reclamation plan h	r specifics.)  r continuing contra ich is not inherently hay use Affidavit F ave been mailed by mailing or delivery CLIM	ct or contracts providing related to the volume orm IV-60.  registered mail or delay of this Permit Applie	gas.  In a solution of flat well royalty or any see of oil or gas so extracted, solution of the extraction to the Department of
Check and pu XX Includ The re  The re  ROYALTY F Is the right to similar provis produced or produced or ff the answer above  Required Cop Copies of this named coal of Mines at Char  Notary:	rovide one of led is the least equirement of PROVISION of extract, prosion for commarketed?  ve is No, not pies (See revisible Permit Apprenator, coanteston, Wes	f the following see or leases of Code 22-4-S duce or mark appensation to Yes Nothing additionance side.)	or other continuing co	ontract or contracts (See reverse side for dupon a lease or other lor gas in place what answer is Yes, you red reclamation plan h	r specifics.)  r continuing contra ich is not inherently hay use Affidavit F ave been mailed by mailing or delivery CLINT Signed: Its:	ct or contracts providing related to the volume orm IV-60.  registered mail or delay of this Permit Applie	gas.  In a solution of flat well royalty or any see of oil or gas so extracted, solution of the extraction to the Department of

Date

uirements subject	to the conditions contained	herein and on the rev	erse hereof. Notification	n must be given to the	District Oil and Gas	Inspector.
	or to the construction of roa				operator or his contra	ctor shall notify the
roper district oil a	nd gas inspector 24 hours b	efore actual permitted	work has commenced.	) most sidebileck	Hershire beligned	Poperator das c
Permit expires	November 18,	1983	unless drilling is c	commenced prior to the	at date and prosecuted	with due diligence

Bond:

#### Line Item Explanation

- 1) Date of Application
- 2) Your well name and number
- 3) To be filled out by office of oil & gas
- 4A) "Oil" means natural crude oil or petroleum and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves underground reservoirs: "Gas" means all natural gas and all other fluid hydrocarbons not defined as oil.
- 4B) "Shallow well" means any well drilled and completed in a formation above the top of the uppermost member of the "Onondaga Group" or a depth less than six thousand feet, whichever is shallower.
  - "Deep well" means any well drilled and completed in a formation at or below the top of the uppermost member of the "Onondaga Group" or at a depth less then six thousand feet, whatever is shallower.
  - 5) Where well is located
  - 6) Before a permit can be issued in a corporation, company partnership, or fictitious name, the name must be registered with the Secretary of State Office
  - 7) Use separate sheet if necessary
  - 8) Present surface owner at time application is filed.
  - 9) Optional
- 11) See Reg. 7.01 relating to code §22-4-1k
- 12) "Coal Operator" means any persons, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine. See Note 24
- 13 & 14) As per §22-4-20; See Note 24
  - 15) Work that will be attempted—A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.
  - 16) Anticipated formation for which well will be completed
  - 17) Self explanatory
  - 18) Depth to deepest freshwater, and shallowest salt water, taken from nearby wells corrected for differences in elevation
  - 19) All coal seam depths
  - 20) Proposed casing program and cementing refer to Code 22-4-5, 22-4-6, 22-4-7, 22-4-8, 22-4-8a Reg 9.01, 15.01, 15.02, 15.03, 15.04, 25.01, 25.02, 25.03, 25.04
  - 21) Code 22-4-11(c) In lieu of filing the lease or leases or other continuing contract or contracts, the applicant for a permit described herein may file the following:
    - (1)A brief description of the tract of land including the district and county wherein the tract is located;
    - (2) The identification of all parties to all leases or other continuing contractual agreements by which the right to extract, produce or market the oil or gas is claimed;
    - (3) The book and page number wherein each such lease or contract by which the right to extract, produce or market the oil or gas is recorded;
    - (4)A brief description of the royalty provisions of each such lease or contract.
  - 22) Code 22-4-11(d) and 22-4-11(e).
  - Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.
  - 24) The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

#### WAIVER

The undersigned coal operator amined this proposed well location. If added to the mine map. The undersigned operator has complied with all applications.	a mine map exists w ed has no objection	hich covers the are to the work propos	ea of the well location, sed to be done at this l	, the well location has been location, provided, the well
o's the second crayer and with the dispense		estan : The section of the section o		The manual section and the sec
Date:, 19	TATE OF STREET	Ву	a letter to	W AA H

Its



DATE	January	20,	1983	
WELL.	NO. 1040 1	lardy	,	

# State of Mest Hirginia API NO. 47 - 079 Bepartment of Mines

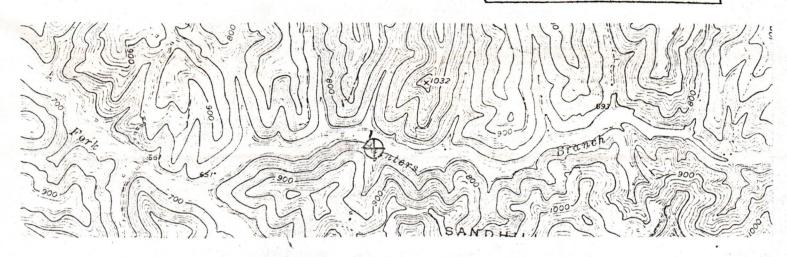
## CONSTRUCTION AND RECLAMATION PLAN

Gil und Gas Bivision

COMPANY NAME Clint Hurt & Associates, Inc.	DESIGNATED AG TO TO Devid Bout you
Address P P.O. Box 388	Address P. I. David Bartram P.O. Box 388
Telephone Elkview, W.Va. 25071	Telephone Elkview, W.Va. 25071
LANDOWNER Russel Randolph	SOIL CONS. DISTRICT Western
	Fred Wiseman (Agent)
This plan has been reviewed by	SCD. All corrections
and additions become a part of this plan:	
and additions seems of participations	(Date)
	(SCD Agent)
ACCESS ROAD	LOCATION
Structure Drain Pipe (A)	Structure(1)
Spacing As shown on sketch	Material
Page Ref. Manual 2-7, 2-8 & Tables	Page Ref. Manual
Structure Rock (B)	Structure (2)
1501	Material
Брасия	Page Ref. Manual
Page Ref. Manual N/A	Page Rel. Falluar_
Structure (C)	Structure(3)
Spacing	Material
Page Ref. Manual	Page Ref. Manual
commencial timber is to be cut and stack	gularly and repaired if necessary. All seed and all brush and small timber to be
cut and removed from the site before dir	Work begune.
REVEC	GETATION
	Treatment Area II
Treatment Area I  Time 3 Tons/acre	Lime 3 Tons/acre
or correct to pH 6.5	or correct to pH 6.5
Fertilizer 800# 12-12-12 lbs/acre	Fertilizer 800# 12-12-12 lbs/acre (10-20-20 or equivalent)
(10-20-20 or equivalent)	Mulch Hay 1.5 to 2 Tons/acre
Mulch Hay 1.5 to 2 Tons/acre	Seed* KY-31 Fescue 30 lbs/acre
Seed* KY-31 Fescue 30 lbs/acre	Orchard Grass 12 lbs/acre
Orchard Grass 12 lbs/acre	Ladino Clover 3 lbs/acre
Ladino Clover 3 lbs/acre	The state of the s
*Inoculate all legumes such as vetch, t	refoil and clovers with the proper bacterium.
Inoculate with 3X recommended amount.	1 1. m (.)
F	PLAN PREPARED BY full 111. WISEMOND
NOTES: Please request landowners'	ADDRESS P.O. Box 1433
cooperation to protect new	Charleston, WV 25325
seedling for one growing season. Astach segarate shiets as	PHONE NO. 304-342-3171
necessary for comments.	PHONE NO.

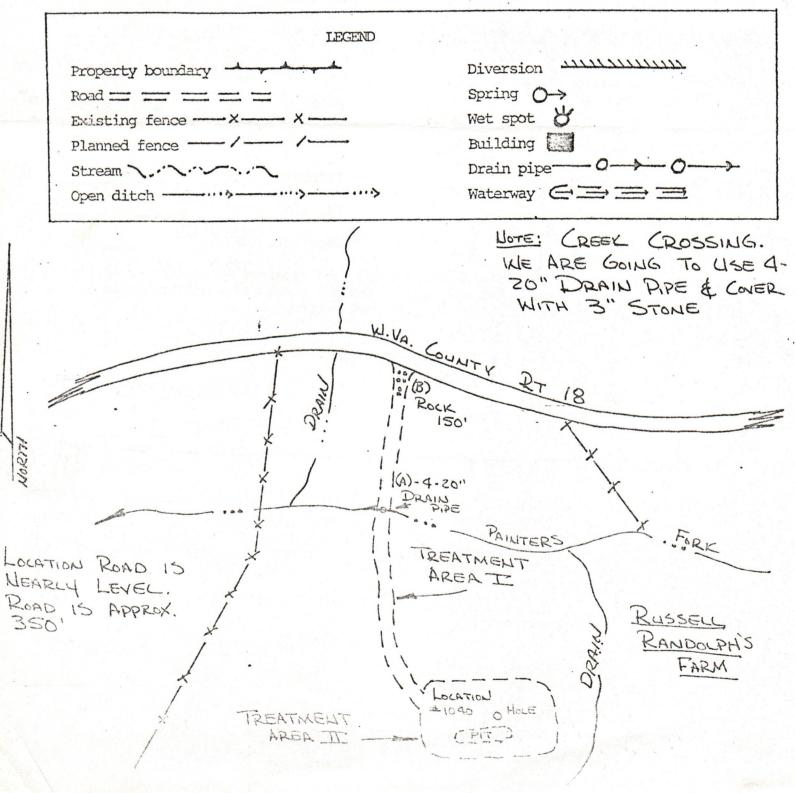
ATTACH OR PHOTOCOPY SECTION OF INVOLVED TOPOGRAPHIC MAP. QUADRANGLE BANCROFT, WVA.

LEGEND
Well Site 
Access Road ———



#### WEIL SITE PLAN

Sketch to include well location, existing access road, roads to be constructed, wellsite, drilling pits and necessary structures numbered or lettered to correspond with the first part of this plan. Include all natural drainage.





IV-35 (Rev 8-81)

WELL TYPE:

OIL & GAS DIVISION
DEPT. OF MINES



# State of Mest Airginia

Department of Mines Bil und Gas Division

Date	April	15,	19	83	
Opera	ator's				_
Well	No.	#1	Z		
Farm	Frank H	ardy			_
API N	₩o. 47 -	079	_	1112	

WELL OPERATOR'S REPORT OF

Gas X / Liquid Injection

DRILLING,	FRACTURING	AND/OR	STIMULATING,	OR	PHYSICAL	CHANGE

IOCATION: Elevation: 666.65 Watershed Pa	ainters B	r. of Che	erry For	k
District: Union County Put	nam	Quadrangle	e Bancro	ft 7½
COMPANY Clint Hurt & Associates				
ADDRESS Box 388, Elkview, WV 25071	I - :	T., 7.	Γ- ε	Cement
DESIGNATED AGENT I. David Bartram	Casing	Used in		fill up
ADDRESS Box 388 Elkview, WV 25071	Tubing	Drilling	in Well	Cu. ft.
SURFACE CWNER Russell Randolph	Size 20-16			
ADDRESS Rt. 1, Bx. 145, Petersburg, WV	Cond.	-		
MINERAL RIGHTS OWNER Frank Hardy ET AL	13-10"	<del> </del>		
c/o Kanawha Valley Bank ADDRESS Charleston, WV	9 5/8	240	240	To Surfa
OIL AND GAS INSPECTOR FOR THIS WORK Kenneth	8 5/8			
	7	2049	2049	100 Sax
Butcher ADDRESS Barboursville, WV	5 1/2			
PERMIT ISSUED	4 1/2		4152	225 Sax
DRILLING COMMENCED 6 PM March 24, 1983	3			
DRILLING COMPLETED March 30, 1983	2			
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR	Liners			
REWORKING. VERBAL PERMISSION OBTAINED	used			
ONN/A		1		1
GEOLOGICAL TARGET FORMATION Devonian Sha	le	Dep	th 4	125 feet
Depth of completed well 4177 feet	Rotary X	/ Cable	e Tools_	
Water strata depth: Freshfeet;	Salt_	feet		
Coal seam depths: None reported	Is coal	being min	ed in the	area? No
OPEN FLOW DATA				
Producing formation Devonian Shall	le Par	y zone dep	th3910-4	050 feet
Gas: Initial open flow 22 Mcf/d				***************************************
Final open flow 133 Mcf/d				
Time of open flow between init				
Static rock pressure 650 psig(surface				
(If applicable due to multiple completion				
Second producing formation		v zone dep	th	feet
Gas: Initial open flow Mcf/d				
Final open flow Mcf/d				
Time of open flow between init	tial and f	inal tests	ho	nirs

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Perforated 4½" casing 3910 to 4050 w/29 shots. Fractured Devonian Shale using 280 bbls. water and 33,500# sand.

WELL LOG

			REMARKS		
FORMATION COLOR HARD OR SOFT	TOP FEET	BOITOM FEET	Including indication of all fresh		
FORMATION COLOR MAD ON BOLL	201		and salt water, coal, oil and gas		
Sand	0	42			
Shale	42	297			
Sand	297	303			
Shale	303	382			
Sand	382	397			
Shale	397	460			
Sand	460	468			
Shale	468	630			
Sand	630	647			
Shale	647	710			
Sand	710	723			
Shale	723	785			
Sand	785	830			
Shale	830	943			
Sand	943	967			
Shale	967	982			
Sand	982	1038			
Shale	1038	1088			
Sand	1088	1100			
Shale	1100	1465			
Salt Sand	1465	1675	나이지 말았다. 그는 회가의 스 시간 소급이 되었다.		
Shale	1675	1702			
Big Lime	1702	1834			
Shale	1834	1878			
Injun Sand	1878	1978			
Gray Shale	1978	2319			
Coffee Shale	2319	2351			
Berea Sand	2351	2360			
Gray Shale	2360	3579			
Brown Shale	3579	4081			
	4081	4177			
Gray Shale	4001	1			
TOTAL DEPTH	4177				
TOTAL DEPIR	1 //		기가 있으로 그 이 사람들은 경기를 가면 하고 있었다.		
MAN TO THE RESERVE OF THE PERSON OF THE PERS					

(Attach separate sheets as necessary)

Clint Hurt & Associates	
Well Operator By: I Down Butham	
Date:	

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

## DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION



MAR 2 8 1983

# OIL AND GAS DIVISION WY DEPARTMENT OF MINES

## INSPECTOR'S WELL REPORT

Permit No. 47-079-1112			Oil or	Gas Well
Company Clint Hunt + ass	CASING AND TUBING	USED IN DRILLING	LEFT IN	PACKERS
Address Charleston W	VaSize		a 122 00 0 00 0	See Contract of the
Farm Frank Hardy	16		-	Kind of Packer
Well No.	13	240-		
District Much County Julia	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Size of
Drilling commenced 3-24-85	65%	200		Depth set
Date shot Depth of shot 240	5 3/16	MAR 2 8 19	83	Perf. top
Initial open flow/10ths Water inInc.	h Liners Used	OIL AND GAS I	DIVISION	Perf. top
Open flow after tubing/10ths Merc. inIncl				Perf. bottom
VolumeCu. Ft	. CASING CEME	NTED	_SIZE_	No. FTDat
Rock pressurelbshrs	NAME OF CE	RVICE COMPAN		
Dilbbls., 1st 24 hrs.	. COAL WAS EN	COUNTERED A	ATF	EETINCHE
resh waterfeetfeet				EETINCHE
alt waterfeetfeet		INCHE		EETINCHES
Drillers' Names Junion anh			9 P. P. 1	2.77
Co, Toul	)			

3-25-83

(503) DISTRICT WELL INSPECTOR

#### DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION

#### INSPECTOR'S PLUGGING REPORT

OMPANY			ADDRESS		7	
ARM	u) 1933 - 1946	DISTRICT	OWINE	COUNTY		
illing Material Used.			The second of	240	1 16 1	A STATE OF S
iner Lo	cation	Amount	Packer	Location	No.	
PLUGS USED A	AND DEPTH PLACED		BRIDGES		G AND T	UBING
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOST
		- 20		9-919		
		G (0)				
	3000		N at 2 a	2 7 1 1 2 2		21 00 900
Land American				N/a/p	12.	4.
The state of the contract of t	C/48810	N N	The state of the s	ringel		
	Mary Mary Mary	N SAM N	and grand the state of the state of	- 101		eti svija iz
1.11			Sort on S	1 2160 1	gwidn)	erra week
	19010	don 1, 700	3 1978 83 1 1978			· · · · · · · · · · · · · · · · · · ·
150 3/25	* * *		IO AMAIN	edi		93898935
alli burtar			bolis, last Da hear Conal NV A	. V =		
illers' Names				A TO THE PARTY OF	and the second	and the second of
marks:	and the same of the same					
				and the same of th		

DISTRICT WELL INSPECTOR

#### DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION



APR 4 - 1983

OIL AND GAS DIVISION WY DEPARTMENT OF MINES

#### INSPECTOR'S WELL REPORT

Permit No. 079	-11/2			Oil or	Gas Well Gas
Company Clin	& Hurt + Assoc	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address Char	leston, W.Y.A.	Size			
Farm France		16			Kind of Packer
Well No Har	dy #1	13			Size of
District	County Putnam	9/8	*	250	
Drilling commenced		7"		2050	Depth set
	/30/83 Total depth 4152	5 3/16		4152	D. C.
Date shot	Depth of shot	2		7, 0,0	Perf. topPerf. bottom
Initial open flow	/10ths Water inInch	Liners Used			Perf. top
	g/10ths Merc. inInch				Perf. bottom
Volume	Cu. Ft	NAME OF SEP			10 No. FT 3/25/88 Pat
):1	bbls., 1st 24 hrs.		COUNTERE		
Reesh water	feetfeet	FEET	INC	HES	_FEETINCHE
Salt water	feetfeet	FEET	INC	HES	FEETINCHES
Drillers' Names 6	Starcher J	tohn Arch	er Jr.	Pusher	n
C1: + +	1111 4 81 411				
Remarks: 3/25/	83 Rand 250ft. of of Reg. by Hallib 3 Ran 2050 ft. of	c 938" + Co	em: Wi	th 110:	Sacks
3/27/8	3 Ran 2050 ft. of	7"pipe + c	em.wi	th 100	Backs.
3/30/8	3 Ran 4152 of 4	&" Pipe	Hallibu	rton o	nhocation
3/30/83	Ready to cemer	nc 42 WI	2	tomes &	4. Dougherty

#### DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION

## INSPECTOR'S PLUGGING REPORT

COMPANY			ADD	RESS	A CONTRACTOR OF THE STATE OF TH	ar as fet dans ess	
FARM	. 12 7 12 12 12 12 12 12 12 12 12 12 12 12 12	DISTR	ICT		COUNTY	~15	
Filling Material Used				1744	120-50		
Liner L	ocation	Amou	nt	Packer	Location	116,72	
PLUGS USED	AND DEPTH PLACED			BRIDGES	CARIN	G AND TI	DBING
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONST	RUCTION-LOCATION	RECOVERED	SIZE	LOST
	2550	· · · · · · · · · · · · · · · · · · ·	7 0	we ku oar	erlande	( ()	A to a land some selection
•					D. J. Marie Marie		1 Milateleman.
and the last	41152	5	47	751H-100	58/05	5	
There's Sand					thyoU	To de la comple	
				Hamiltonia Sank			
				Karl		garaur <del>f</del> a	
58/52/8 03	98 2	JETKEN.	in the same				
Hipporton	the second	X 14.2	ALL STANCE R			THE VERY LAND	***************************************
		menny a		FALSE ALL LARGE			
P							
Drillers' Names							
Remarks:	Jr. Pusher	484	ion Are	ier to	Starel	Ø.	man he sheet the
				144	A Frot	8 1	Clin
Sacks	: with 110	maj.	938"+	125066.06	83 RAN	125/	8
Backs.	100 mit the 100	cen	1, 6, 66 4	p. by Halliber	3 8002	3/6%	3/
shocation	liberton e	40	3419 11.	4152 08 48	3 8000		2
of 50 80 802.	225 sacks	42.M	£ 1/2"	to cemen	Ready		
DATE	I hereby certify I vi	sited the a	bove well on	this date.			3/30/

STATE OF MEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION

#### FINAL INSPECTION REQUEST

#### INSPECTOR'S COMPLIANCE REPORT



OIL & GAS DIVISION
DEPT. OF MINES

Permit No.	79-1112	County PUTNA	m	
Company CL	INT HURT & ASSOC.	Farm HARDY		Management of the San
Inspector J	ERRY HOLCOMB	Well No.	rindanies ann Andreas anno anno anno anno	
Date Apa	11 19, 1983			
			IN COMP	LIANCE
RULE	DESCRIPTION		Yes	No
23.06	Notification Prior to starting Wor	rk.		-
25.04	Prepared before Drilling to preven	t waste	- Angles and Angles an	******************
25.03	High-Pressure Drilling		-	
16.01	Required Permits at wellsite		****	-
15.03	Adequate Fresh Water Casing			
15.02	Adequate Coal Casing		-	
15.01	Adequate Production Casing			-
15.04	Adequate Cement Strength			
23.02	Maintained Access Roads			
25.01	Necessary Equipment to prevent Was	te		-
23.03	Reclaimed Drilling Site			
23.04	Reclaimed Drilling Pits			
23.05	No surface or underground Pollution	n	~	
7.03	Identification Markings		~	
COMMENTS:	OK			
1				

I have inspected the above well and (HAVE/HAVE NOT) found it to be in compliance with all of the rules and regulations of the Office of Oil and Gas Department of Mines of the State of West Virginia.

DATE: 3-29-83



### State of West Birginia

Bepartment of Mines Charleston 25305

WALTER N. MILLER Director

Governor

JOHN D. ROCKEFELLER, IV.

April 6, 1984

Clint Hurt & Associates. Inc. P. O. Box 388 Elkview, W. Va. 25071

Gentlemen:

The required records and reports have been received in this office and the District Inspectors have submitted FINAL INSPECTIONS for the following wells listed below:

PERMIT NUMBER	FARM AND WELL NUMBER	DISTRICT
PUT-1112	Frank Hardy, et al, #1	Unjon
WAY-1796	Ella Ekers, #1	Unjon

In accordance with Chapter 22, Article 4, Section 2, the above captioned wells will remain under bond coverage for "life of wells." Reclamation requirements have been approved.

Very truly yours,

Theodore M. Streit, Administrator Dept. Mines-Office of Oil & Gas

TMS/rl

State Cosy APPLICATION FOR DETERMINATION OF THE MAXIMUM LAWFUL

-		INDER I	HE NATURAL G	AS PULICI ACI	(NGPA)	
1.0	API well number: (If not assigned, leave blank, 14 digits.)		47 -	079 - 1112	- 10) E(C	IEUWEIN
20	Type of determination being sought:	<del>i                                     </del>			11/6	
2.0	(Use the codes found on the front	!	1	07	2 44	10
	of this form.)	!				18 1983
20	Depth of the deepest completion	1	Secti	ion of NGPA	ategory Code 111 11	0 1000
3.0		i		1177		
	location: (Only needed if sections 103	i		4177	feet Oil &	GAS DIVISION
_	or 107 in 2.0 above.)	1			DEBT	OF MINES
4.0	Name, address and code number of	i	LINT HU	T I ACCT		TH MILLY
	applicant: (35 letters per line	!	LINI HUI	21 9 4550	CIAIES	-
1	maximum. If code number not	Name	0- 0.	200		Seller Code
	available, leave blank.)		P.O. BOX	200	he personal and the second and the s	
1		Street				
		: =	ELKVIEW	w.	1A. 2507	<u></u>
		City		State	Zip Code	
5.0	Location of this well: [Complete (a)	1		1:	,	
	or (b).]	!	EAST 1	MIDWA	۲	
	(a) For onshore wells	Field N	ame_			
	(35 letters maximum for field	i	PUTNAM	$\omega$ .	VA.	
	name.)	County	•	State		
	(b) For OCS wells:					
		Area Na	ame		Block Numb	per
		i				
i		i	Date	of Lease:		
1		i	1 1 1			
		i .	Mo.	Day Yr.	OCS Lease Number	
	(c) Name and identification number	!	# 1 500 11		,	
	of this well: (35 letters and digits		FEANE	- HARD	<b>f</b> .	
	maximum.)					
	(d) If code 4 or 5 in 2.0 above, name	1				
	of the reservoir: (35 letters	1				
1	maximum.)	!				
6.0	(a) Name and code number of the	1				
	purchaser: (35 letters and digits	I	DENON PIPE	ELINE CO.	=	
	maximum. If code number not		EASON /V	J.V. PIPELIN	JE CO.	038117
	available, leave blank.)	Name			,	Buyer Code
	(b) Date of the contract:	1				
				10,4,1,5,8	3,3,	
		i			Yr.	
	(c) Estimated total annual production	1				
	from the well:	1		12	Million Cubic	Feet
		! .				
					(c) All Other	10=
		i	(a) Base Price	(b) Tax	Prices [Indicate	(d) Total of (a),
					(+) or (-).]	(b) and (c)
7.0	Contract price:	1	:	, , , , , , , , , , , , , , , , , , , ,	-	
	(As of filing date. Complete to 3	S/MMBTU	2752	0.303	0 0 0 0	3.055
	decimal places.) @ 14.73 PSI	!				2.222
_	Maximum lawful rate:	i	0-			
	(As of filing date. Complete to 3	S/MMBTU	- DE	PEGULA	ATED -	NO SECURITION OF THE PERSON OF
	decimal places.)	1				
	Person responsible for this application:	!			-	
		I	DAVID B	DETRAM	Peop.	SUPT.
	Agency Use Only	Name/	1 . //	501	Title	
Date	Received by Juris. Agency	1	1/aurol	Sunt ta	ty	
	ADD 1 8 1003	Signatur	*			-
Date	Received by FERC	1 4/	10/93		304-34	4-2401
		Date Ap	plication is Completed		Phone Number	
	1	1				

FERC-121 (8-82)

PARTICIPANTS: DATE: SEP 22 1983	BUYER-SELLER CODE
WELL OPERATOR: Clint Hort & Associates	
FIRST PURCHASER: Devon Pipeline Co « Eason W/Pipeline	038117
OTHER:	
W. Va. Department of Mines, Oil & Gas Division WELL DETERMINATION FILE NUMBER  \$3.0418-107-079=1112  Use Above File Number on all Communications Relating to Determination of this Well	
CHECK EACH ITEM AS COMPLETE OR NOTE WHAT IS MISSING	
ITEM NO.	
1. FERC -121 V Items not completed - Line No. $7.0$ $8.0$	dereg
2. IV-1 Agent I David Bartram	V
3. IV-2 Well Permit	
4. IV-6 Well Plat	
5. IV-35 Well RecordDrilling Deepening	3
6. IV-36 Gas-Oil Test: Gas Only Was Oil Produced?	Ratio
7. IV-39 Annual Production years	
8. IV-40 90 day Production Days off line:	
9. IV-48 Application for certification. Complete?	
10-17. IV Form 51 - 52 - 53 - 54 - 55 - 56 - 57 - 58 Complete? Aff	
18-28. Other: Survey Logs Geological Charts	
Structure Map 1: 4000 Map Well Tab	
(5) Date commenced: 3-24-83 Date completed 3-30-83 Deepen	ed
(5) Production Depth: 3910 - 4050	
(5) Production Formation: Devonian	
(5) Final Open Flow: 133 mcf	
(5) After Frac. R. P. 650 # 69 his	
(6) Other Gas Test:	
(7) Avg. Daily Gas from Annual Production:	<i>p</i>
(8) Avg. Daily Gas from 90-day ending w/1-120 days	
(8) Line Pressure: PS	
(5) Oil Production: From Completion Report	,
10-17. Does lease inventory indicate enhanced recovery being done	
10-17. Is affidavit signed?	
Does official well record with the Department confirm the submitted information	
Additional information Does computer program confirm?	
Was Determination Objected to By Whom?	

DEPARTMENT OF MINES, OIL AND GAS DIVISION

Date APRIL 15 , 1983

Operator's # | LLAZOY

API Well No. 47 - 079 - 1112 State County Permit

STATE APPLICATION FOR WELL CLASSIFICATION

Previous File No. (If Applicable)

	WELL OPERATOR CLINT HURT & ASSOC. DESIGNATED AGENT I. DAVID BARTRAM
	WELL OF ENGLOR
	ADDRESS F.O. DOK 300
2	
	Gas Purchase Contract No. DPLSZ5 P and Date 4/15/83  Meter Chart Code 691  Meter Chart Code 691
	Name of First Purchaser DEVON PIPEUNE CO. & EASON W.N. PIPELINE CO.
	P.O. Box 1433
	CHARLESTON W.VA. 25325 (City) (State) (Zip Code)
	FERC Seller Code FERC Buyer Code 038117
	TYPE OF DETERMINATION BEING SOUGHT:
	(1) Initial determination (See FERC Form 121.) Section of NGPA Category Code  (2) Determination that increased production is the result of enhanced recovery technology.
	(3) Determination of a seasonally affected well.  T. PAVID BARTRAM PROD. SUPT.
	Name (Print) R Title
	Signature day nam
	P.O. Box 388
	ELKNIEW W.VA. Z5071 City State (Zip Code)
	3 0A - 344 - 2401
	Area Phone Number Code
	(Certificate of Proof of Service to Purchaser)
	ON APRIL 18,1983 DELINERED TO: MR. BILL R. WEXNEL
	ON APRIL 18,1983 DELINERED TO: MR. BILL R. WERVOL DEVON PIPELINE CO. & EASON /W.V. PIPELINE CO.
	1207 QUARRIAR ST.
	CHELESTON, W.VA. 25301
	(All of the above to be completed by the Operator/Applicant)
	(To be completed by Jurisdictional Agency. Executed copy to be returned to Operator/Applicant and purchaser, if known).
	The Department of Mines has received a request, for certification of the above described well as meeting the requirements of Section under the Natural Gas Policy Act of 1978.  (NGPA): or for determination that increased production is the result of enhanced recovery technology under Section 108 of (NGPA): or for determination of a seasonally affected well under Section 108 of (NGPA)
	All interested parties are hereby notified that on the day of, 19, at the office of the Oil and Gas Division in Charleston, West Virginia, or as soon thereafter as it may be heard, there will be a public hearing, if requested, or if objection is filed.
	This Application is assigned File No
-	Initial review of information submitted indicates the well is, is not entitled to certification as claimed under the Natural Gas Policy Act (NGPA). A review of this evidence and any additional evidence will be made at the time appointed for a public hearing or as soon thereafter as the matter may be heard.
	Unless objections are timely filed or a request for a hearing is made within fifteen (15) days, a hearing will not be held except on ex parte motion of the department and the matter will go to determination.
	WEST VIRGINIA DEPARTMENT OF MINES

APR 181983

Date received by Jurisdictional Agency

DEPARTMENT OF MINES, OIL AND GAS DIVISION

Operator's #1 HARDY

API Vell
No 17 - 079 - 1112

State County Fermi

DESIGNATED ACENT I. DAVID BARTRAM

# WELL CLASSIFICATION FORM HIGH COST GAS WELL - DEVONIAN SHALE

MGPA Section 107

	ADDRESS P.O. BOX 388
	ELKNIEW, W.VA. 25071
WELL OPERATOR CLINT WET & ASSOC.	LOCATION Elevation 666.65
ADDRESS P.O. BOX 388	Watershed PAINTERS BR. OF CHERRY FOR
ELKNIEW, W.VA. 25071	Dist UNION County RITHAM Quad BANKE
GAS PURCHASER DEVON PIDELINE CO.	Gas Purchase DPL525P
ADDRESS P.O. BOX 1433	
CHARLESTON, W.VA. 25325	Meter Chart Code 691  Date of Contract APRIL 15,1983

Date surface drilling began: 6PM MARCH 24, 1983

Indicate the bottom hole pressure of the well and explain how this was calculated.

SURFACE GAUGE PRESSURE = 650 PSI BOTTOM LIQUE PRESSURE IS CALCULATED FROM THE OBSERVED SURFACE PRESSURE BY MULTIPLYING BY A FACTOR OF 1.115 ... BLP = 725 PSI (SEE ATTACHED CHART AND CALCULATION)

I, T. DANIO BATRAM having been first sworn according to law, state that, I have calculated the percentage of footage of the producing interval which is not Devonian shale as indicated by a Gamma Ray index of less than 0.7 if a Gamma Ray log described subparagraph (3)(i) or (3)(ii)(A) has been filed, or as indicated by the report described in subparagraph (3)(ii)(B); I have demonstrated that the percentage of potentially disqualifying nonshale footage is equal to or less than five (5) percent of the gross Devonian age interval; and I have no knowledge of any information not described in the application which is inconsistent with a conclusion that the well qualifies as a high cost natural gas well.

STATE OF WEST VIRGINIA.

COUNTY OF KANAWAA. TO WIT:

Commissioned

I. Wicciam W. Morris, a Notary Public in and for the state and county aforesaid, do certify that I. David Bartram, whose name is signed to the writing above, bearing date the 15 day of April . 1983, has acknowledged the same before me, in my county aforesaid.

Given under my hand and official seal this 18 day of Apric . 1983.

My term of office expires on the 21 day of Apric . 1990.

William a unfam

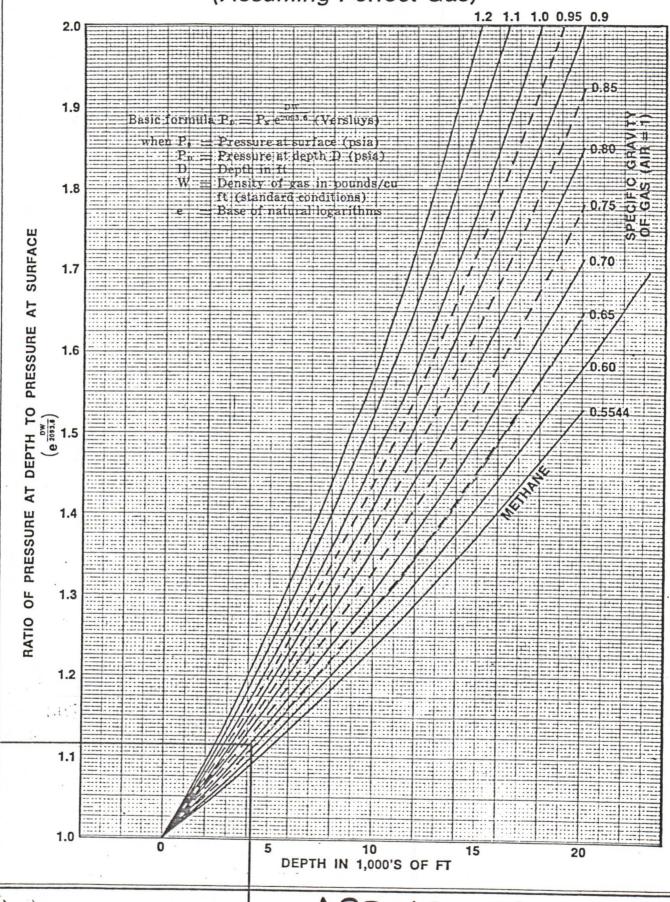
[NOTARIAL SEAL]

# API 47-079-1112 BOTTOM HOLE PRESSURE



# Ratio of Gas Pressure at Depth to Pressure at Surface

(Assuming Perfect Gas)



4177'

1.115

API 47-079-1112 WIZT \*1 HARDY SP. GRAVITY = .69 SWIT IN PRESS = 650 PS FRANK A. HARDY and KATHERINE S. HARDY, his wife, HELEN M. HOGE, widow, KENNETH M. BOWYER, JR., and MARION C. BOWYER, his wife, MARY BOWYER GARRETT and BRUCE A. GARRETT, her husband, MARGARET C. JONES, widow, HUMPHREYS INVESTMENTS, INCORPORATED, a corporation, ASHTON W. RENIERS and PERCEVAL RENIERS, her husband, CHARLOTTE W. STERRETT and C. HERROLD STERRETT, her husband, BOYDIE C. MORTON and D. HOLMES MORTON, her husband, WALLER C. HARDY, JR., and CHARLOTTE P. HARDY, his wife, GEORGE E. BROOKS, in his own right and as Agent for the heirs of W. E. Brooks, and NELLIE C. BROOKS, his wife, LILLIAN L. BUCK and BRADFORD B. LAIDLEY, the last two in their capacity as TRUSTEES under an Indenture dated May 2, 1939, parties of the first part, hereinafter called the "Lessors," and COMMONWEALTH GAS CORPORATION, a corporation, party of the second part, hereinafter called the "Lessee,"

WITNESSETH: That the Lessors, in consideration of One Dollar (\$1.00), the receipt of which is hereby acknowledged, and in further consideration of the covenants and agreements hereinafter contained on the part of the Lessee to be paid, kept and performed, have demised, leased and let, upon the terms and conditions and subject to the reservations and stipulations hereinafter set forth, and by these presents do demise, lease and let, unto the Lessee all of the oil and gas in and underlying the tracts of land hereinafter described, together with the rights in connection therewith which are hereinafter specifically set forth, for the sole and only purpose and with the exclusive right of mining, drilling and operating thereon for the production of oil and gas, together with such rights as the Lessors own to construct and maintain thereon all pipe lines, stations, plants, tanks, structures, equipment, machinery, appurtenances and private telephone lines which Lessee may deem necessary or convenient for the production and transportation of oil and/or gas from the leased premises, or from any adjacent premises also operated by Lessee, together with adequate and appropriate rights of way and easements for such purposes, said tracts being more particularly described as follows: All those two (2) certain tracts of land situate in Putnam County, West Virginia, containing in the aggregate eight hundred and

eighty (880) acres, more or less (hereinafter referred to as "the leased premises"), being parts of the Jabel Tract of one hundred thousand (100,000) acres which was conveyed by the Commonwealth of Virginia to Samuel Hollingsworth by patent dated the 3rd day of March, 1796, and of record in the State Auditor's Office, Charleston, West Virginia, in Land Grant Book for Kanawha County No. 1, at page 489. Said leased premises are more particularly described as a tract containing two hundred and sixteen (216) acres and a tract containing six hundred and sixty-four (664) acres situate on the waters of Painters Branch, formerly the property of The Putnam Company, and shown on a map attached hereto as a part hereof and to be recorded herewith.

The leased premises above described were conveyed to the Lessors or their predecessors in title by The Putnam Company, a corporation, by deed dated September 1, 1947, of record in Putnam County, West Virginia, in Deed Book 88, at page 395. The leased premises are now owned by the Lessors in the undivided interests set opposite their respective names in the following tabulation:

#### Name of Lessor

Frank A. Hardy

Helen M. Hoge

Kenneth M. Bowyer, Jr.

Mary Bowyer Garrett

Margaret C. Jones

Humphreys Investments, Incorporated

Ashton W. Reniers

Charlotte W. Sterrett

Boydie C. Morton

Waller C. Hardy, Jr.

George E. Brooks, in his own right and as Agent

Lillian L. Buck and Bradford B. Laidley, as Trustees under an Indenture dated May 2, 1939

#### Undivided Interest

Twelve and one-half per cent (12-1/2%)

Five per cent (5%)

Two and one-half per cent (2-1/2%)

Two and one-half per cent (2-1/2%)

One and one-fourth per cent (1-1/4%)

Seven and one-half per cent (7-1/2%)

Nineteen and one-fourth per cent (19-1/4%)

Nineteen and one-fourth per cent (19-1/4%)

One and one-fourth per cent (1-1/4%)

Twelve and one-half per cent (12-1/2%)

Four per cent (4%)

Twelve and one-half per cent (12-1/2%)

Lessors do not own the surface of any of the tracts comprising the leased premises, but that the Lessors are the owners of certain mining and other rights which may be exercised by them in connection with the drilling for, mining and removal from said tracts of the oil and gas therein and thereunder. The Lessors hereby give and grant unto the Lessee the right to exercise all of the drilling, mining and other rights so owned by the Lessors insofar as the same are necessary, convenient or incidental to the operations of the Lessee under this agreement.

TO HAVE AND TO HOLD unto the Lessee, its successors and assigns, for the purposes aforesaid and upon the terms and conditions and subject to the reservations and stipulations hereinafter contained, for and during the term of ten (10) years from and after the date Commonwealth Gas Corporation acknowledges this lease, and so long thereafter as oil and gas, or either of them, is produced from the leased premises by the Lessee, its successors and assigns, and rents and royalties paid hereunder by the Lessee in accordance with the terms of this lease. In the event one or more wells capable of producing oil and/or gas shall be drilled during the primary term hereof, but no gas shall have been sold from one or more of such wells, Lessee may extend the term of this lease with respect to an area of one hundred (100) acres around each such well (laid out in a compact boundary as nearly square as the property lines will permit) by the payment of One Hundred Dollars (\$100.00) per year for each such well until such well is connected to a pipe line and gas is sold producing royalty to the Lessors; thereafter the Lessee shall be required to pay to the Lessors only the royalties derived from the sale of oil and/or gas from any such well until any such well is abandoned and no royalty is produced, at which time all rights of the Lessee with respect to each such one hundred (100) acres shall cease and determine.

In consideration of the premises, the Lessee covenants and agrees:

FIRST: To pay to the Lessors, as rent for the leased premises, the sum of Twenty-five Cents (25¢) per acre for each and every three-months' period during the term of this lease, amounting to a quarterly rental of Two Hundred and Twenty Dollars (\$220.00), which quarterly rental shall be payable in advance and without demand therefor, commencing on the day this lease is acknowledged by Commonwealth Gas Corporation.

SECOND: To deliver to the credit of the Lessors, free of cost, in the pipeline to which the Lessee may connect the wells drilled by it upon the leased premises, a royalty of the equal one-eighth (1/8) part of all oil produced and saved from the leased premises.

gas only, a royalty payable within thirty (30) days after the expiration of each quarter, beginning with the date when gas is marketed or used therefrom off the leased premises, and continuing so long as gas is produced and marketed or used off the leased premises, equal to one-eighth (1/8) of the wholesale market value thereof at the well as represented by the prevailing purchase price currently paid at the well by purchasers of gas at wholesale in the field in which the well is located, but in no event less than Two and One-half Cents (2-1/2¢) per MCF. In the determination of the prevailing purchase price at the well, hereinbefore referred to, the contract between Commonwealth Gas Corporation and Spartan Gas Company dated April 19, 1956, shall not be taken into account.

FOURTH: (a) In the event any gas well drilled hereunder on the leased premises shall produce raw or drip gasoline, Lessors shall be paid a royalty of one-eighth (1/8) of the wholesale price received by Lessee therefor, less Lessee's costs, if any, of handling and transportation.

(b) All casinghead gas from oil wells remaining after the extraction of gasoline shall be marketed, if practical so to do, and, if marketed, shall be paid for at the same rate as other gas, and the Lessors shall be paid one-eighth (1/8) of the wholesale market price, less the cost of manufacturing, transportation and handling, for gasoline manufactured from casinghead gas produced on said premises.

FIFTH: All rents and royalties accruing under this lease shall be payable as follows:

Ninety-six per cent (96%) of said rents and royalties (being all of the rents and royalties accruing thereunder except such as accrue to George E. Brooks, in his own right and as Agent) shall be payable to The Kanawha Valley Bank, of Charleston, West Virginia, as Agent, and shall be disbursed to the Lessors other than George E. Brooks, in his own right and as Agent, in the proportions in which said Lessors own undivided interests in the leased premises and hereinbefore more particularly set forth.

The remaining four per cent (4%) of said rents and royalties shall be paid direct to George E. Brooks, as Agent, and shall be disbursed by him to the successors in title of W. E. Brooks in the proportions in which said persons own the four per cent (4%) interest in the leased premises heretofore owned by the said W. E. Brooks.

Oil and gas royalties in each lease year shall be credited against the delay rental for such lease year, but the Lessee shall pay to the Lessors for each lease year during the term of this lease an amount equal to the delay rental for such lease year, it being understood and agreed that such delay rental represents the minimum amount which the Lessee shall pay to the Lessors, so long as this lease continues in force and effect. Each lease year shall commence on the day of the month this lease is acknowledged by Commonwealth Gas Corporation.

If, at the end of any lease year from the date of this lease, the amount of royalties paid, or payable, for gas or gasoline for such year, together with the market value of any oil delivered to the Lessors as royalty, shall be less than the amount of land rental for such year, the Lessee shall, within thirty (30) days after the end of such year, pay to the Lessors the difference between the land rental for such year and the amount of royalties, including market value of oil royalty, so accruing for that year.

If the amount of royalties, including market value of oil royalty, accruing to the Lessors for any lease year shall equal or exceed the amount of land rental for such year, then such royalties shall be deemed to be satisfaction of the land rentals for such year.

SIXTH: Gas produced and saved from the leased premises hereunder shall be measured by orifice, pitot tube or other meter of standard type (or, if the volume of gas so requires, by more than one meter), to be furnished by the Lessee, with necessary fittings and connected with the line or lines by means of which the Lessee may remove the gas from the leased premises, and the quantity of said gas shall be measured on a ten-ounce pressure basis above 14.7 pounds atmospheric pressure; and when measured through orifice or pitot tube, computation of the same shall be based on the temperature of 60 degrees F. flowing and 60 degrees F. storage, according to Boyle's Law for the measurement of gas at varying pressures, but without allowance for changes in temperature and/or barometric conditions from the aforesaid basis.

SEVENTH: The Lessee shall read the meters daily, or as often as the meter or meters require, but each party shall have constant access to the meters. The cost of installing and maintaining such meter or meters and of reading the same, and of building and maintaining a meter house or houses, shall be borne by the Lessee. On or before the 25th day of July, October, January and April, a statement shall be rendered to the Lessors showing the amount of gas produced and saved during the preceding quarter, based upon a pressure of ten ounces above 14.7 pounds atmospheric pressure, and measured as aforesaid, together with a computation of the amount due and payable to the Lessors, and payment of said amount to the Lessors shall be made by the Lessee at the same time.

EIGHTH: If either party challenges the accuracy of any meter in use under this lease and desires to have such meter tested or repaired, the Lessee shall test and repair the same in the presence or to the satisfaction of the Lessors, or their representatives, if the Lessors shall desire to be present or represented at such test. The cost of testing and repairing the

meter shall be borne by the party challenging the accuracy of the same, if the meter on test proves to be correct or within three per cent (3%) correct, but if the meter on test proves more than three per cent (3%) slow, then the cost of testing and repairing the meter shall be borne by the Lessee. For repair work, the meter shall be shipped to any properly equipped shop of the Lessee or other reliable shop properly equipped, selected by the party complaining, and there tested and adjusted or repaired, unless it can be tested and adjusted or repaired on the ground. During such time as the meter or meters may be out of repair or while being tested, the gas taken shall be estimated and adjustment and settlement shall be made on the basis of the amount of gas registered at like pressure for like periods of time from the same number of wells when the meter was registering accurately. Upon the correction of the inaccuracy of any meter, calculations based upon such correction, and estimates of the amount of gas delivered while the meter was incorrect shall not extend beyond sixty (60) days prior to the date of the test of the meter for accuracy.

NINTH: The statements of oil produced and of meter measurements and estimated adjustments shall be rendered by the Lessee to the Lessors on or before the twenty-fifth (25th) day of each quarter covering all oil and gas produced during the preceding quarter, and shall be conclusive on the part of the parties hereto, except as to correction and adjustment then pending, unless exception thereto, in writing, shall be made by the Lessors and mailed to the Lessee within fifteen (15) days after the Lessors shall receive such statements.

TENTH: The Lessee further agrees to keep full and proper records of all oil and gas produced from the leased premises and of all gasoline manufactured by it from the gas produced therefrom, the quantity of oil delivered to the Lessors' credit, in pipelines or otherwise, and such other matters as may be necessary to enable the Lessors to determine the amount to which they are entitled hereunder, to which said records the Lessors, and their duly appointed agents or agent, shall have access at all reasonable times.

ELEVENTH: Lessee, at its option, may combine any part of the above property with other adjacent tracts of land to form a drilling unit of not more than five hundred (500) acres, on which unit one (1) well may be drilled. If said well is productive, all royalties payable hereunder shall be prorated in the direct proportion that the acreage of each tract, or part thereof, which is included in said unit bears to the total acreage in said unit. The commencement of operations for the drilling of a well on said drilling unit shall have the same force and effect in all respects as the commencement of operations for the drilling of a well on the premises hereby leased; and drilling operations being conducted on said drilling unit, or production of oil or gas anywhere from said drilling unit, shall have the same force and effect as drilling operations being conducted or production obtained from the leased premises as to the extension of the primary term of this lease.

TWELFTH: In the event oil and gas, or either of them, shall be found in paying quantities on the leased premises, the Lessee shall proceed to market the oil and gas with all reasonable dispatch (due regard being given to seasonal and marketing conditions), and after a well has been connected with a pipeline, the extraction of oil or gas from such well shall be prosecuted continuously with reasonable diligence (due regard being given to seasonal and marketing conditions) so long as such well shall produce sufficient oil or gas to enable the Lessee to operate it at a profit, and the Lessee shall not discriminate against the oil or gas wells on the leased premises in favor of any other oil or gas well operated or controlled by it on adjoining property, either in the production or marketing of oil and gas therefrom.

THIRTEENTH: The Lessee shall conduct its operations on the leased premises in such manner as to do no unnecessary damage to the leased premises, and so as to interfere as little as possible with the use of the same by the Lessors, the owners of the surface and coal thereon, their lessees and tenants, and present or future operations thereon, for removing timber and mining coal or other minerals, or other operations thereon. No

well shall be drilled through any entry or haulway, or any existing or projected air courses in any coal mine, now or hereafter in operation on the leased premises, and any well put down through any part of an abandoned mine shall be cased off with steel, or iron pipe, and cement, or in some other approved and proper manner, so as to prevent the leakage or escape of oil, gas or water into such seam or seams of coal, and, upon the abandonment by the Lessee of any well or hole drilled through any seam or seams of coal on the leased premises, the Lessee shall fill such well or hole with concrete or other substance, for the purpose of preventing leakage or escape of oil, gas or water into such coal seam. The Lessee agrees, in its operations on the leased premises, to take every reasonable precaution, and afford every reasonable protection necessary for the purpose of preventing the leakage or escape of oil, gas or water into any mine or seam of coal on the leased premises, and to protect the present and future mining operations on the leased premises from damage or danger by reason of the operations of the Lessee thereon, and the Lessee shall be liable to the Lessors, the owners of the surface and coal thereon, their lessees and tenants, for all damages caused proximately by Lessee's drilling or other operations hereunder, without negligence on the part of the Lessors, the owners of the surface and coal thereon, their lessees and tenants. In addition to the foregoing provisions, the Lessee, in its operations on the leased premises, shall observe and comply with all of the laws of the State of West Virginia relating to such operations. Lessors shall furnish to the Lessee, at its request, accurate maps of all existing or then projected mines, entries, haulways and air courses in the immediate vicinity of any and all wells which the Lessee proposes to drill.

FOURTEENTH: The Lessee agrees that, whenever requested by the Lessors so to do, it will bury, at a proper and reasonable depth below the surface of the ground, all pipe and pipelines used to conduct oil or gas over, from or off the leased premises, when any such pipe or pipeline interferes with the proper use of the leased premises by the Lessors, the owners of the surface and coal thereon, their lessees and tenants, and further agrees that it will so conduct its operations on the leased premises as to

use and occupy no more of the leased premises than is reasonably necessary for the proper conduct of its operations, and so as to interfere as little as possible with the use of the leased premises by the Lessors, the owners of the surface and coal thereon, their lessees and tenants.

FIFTEENTH: Lessee shall notify the Lessors of the location of any wells proposed to be drilled or put down on the leased premises. In case any paying oil or gas well shall be drilled on adjacent property within drainage distance of the leased premises, whether by the Lessee or others, the Lessee shall, upon demand of the Lessors, proceed within sixty (60) days to commence to drill an offset well or wells on the leased premises, and shall complete the same with all reasonable dispatch to protect the demised premises from drainage.

SIXTEENTH: All wells drilled upon the leased premises shall be located so as to interfere as little as possible with the cultivated portions of the land, and the Lessee agrees to pay any damages done to growing crops by reason of said locations, and the Lessee further agrees that no well shall be drilled upon the leased premises nearer than three hundred (300) feet to any building situate thereon without the written consent of the owner of such building first had and obtained.

SEVENTEENTH: The Lessee shall not be required in any event to increase the rent for the leased premises or the royalty for oil and gas produced therefrom, as hereinafter provided, by reason of the fact that any royalty or interest in the oil and gas underlying said tracts has heretofore been sold, reserved or conveyed by the Lessors, or their predecessors in title, and is now outstanding; and if the Lessors do not have title to all the oil and gas underlying the leased premises, there shall be refunded to the Lessee such part of all rental paid by the Lessee under this lease as shall be proportionate to the outstanding title, and rental payments thereafter to be made shall be reduced in the same proportion.

EIGHTEENTH: Commencing two years from the date Commonwealth Gas
Corporation acknowledges this lease and at any time thereafter, and from

time to time, the Lessee shall have the right to surrender the entire lease, or any part or parts thereof, by payment to the Lessors of the sum of One Dollar (\$1.00), and all rents and royalties due to the then current quarter, and by the execution of an apt and proper Release to the Lessors of all of the Lessee's rights hereunder, and by recording such Release in Putnam County, West Virginia, which surrender, when so made and recorded, the Lessors agree to accept, and the same shall be a full and complete surrender of this entire lease and of all of the Lessee's rights hereunder, or of the part therein designated, and the rent thereafter to accrue under this lease shall be reduced accordingly; provided, however, that in the event there shall be one or more producing gas or oil wells upon the leased premises at the time of the surrender of this entire lease by the Lessee, this lease shall nevertheless, at the option of the Lessee, continue in full force and effect so long as any such gas or oil well shall continue to produce gas or oil as to fifty (50) acres surrounding any such gas well which shall be laid off in the form of a square as nearly as practical, with the gas well in the center thereof, and as to twenty-five (25) acres surrounding any such oil well which shall be laid off in the form of a square as nearly as practical and with said oil well in the center thereof, together with rights of access and rights of way to and from each such well or wells over the leased premises for the repair, maintenance and operation thereof, and all necessary roads and pipelines for the transportation of gas or oil produced therefrom, and the Lessee shall have the right to continue the operation of any such well or wells and the production of gas and oil therefrom upon payment to the Lessors of royalties only upon the basis above set forth. The Lessee shall have the right to remove from the leased premises all machinery, fixtures, appliances and other property which it shall have placed thereon, which right may be exercised at any time prior to the termination of this lease by the expiration of the term hereof or by surrender, in accordance with the provisions of this paragraph.

NINETEENTH: This lease shall extend to and be binding upon the parties hereto, their successors and assigns. This agreement may be executed

in any number of counterparts, all of which shall be read together as one instrument.

IN WITNESS WHEREOF, the individual parties have signed their names and affixed their seals, and the corporate parties have caused their corporate names to be signed and their corporate seals to be affixed hereto by their respective officers, thereunto duly authorized, this day and year first above written.

보기에 가는 사이 하는데, 화가 있다는데 그 사이를 하는데 살아 있다면 되는데 되었다.	(SEAL)
Frank A. Hardy	
·	(SEAL)
Katherine S. Hardy	
하고, 그의 그리고 하고 있는데 그리는 그 그리는 그 그리고 살아왔다면 하나니 하다 생각하	(SEAL)
Helen M. Hoge	(SEAL)
neten II. noge	
	(SEAL)
Kenneth M. Bowyer, Jr.	
[사람] 이렇게 되는데 되는데 하다 하는데 하나 나를 하고 하는데	
그 병원 강성하는 것 같아. 그리고 그리고 있는 것 같아 나를 하지 않는 것이다.	(SEAL)
Marion C. Bowyer	
m B. 191 Th	(SEAL)
Mary Bowyer Garrett	(SEAD)
nary bowyer surryer	
Mary Bowyer Garrett  Mary Bowyer Garrett  Anne a. Fanett  Bruce A. Garrett	
Truce a. Farrett	(SEAL)
Bruce A. Garrett	
그 하다 가는 이 보이는 이 문 생생님이 되는 그 살아가지 않는데 나를 되어 있다. 나를 했다	
	(SEAL)
Margaret C. Jones	
무리 없는 것이 집에 없는 이 아들은 맛있다. 하는 그는 그 그렇게 하는 것이 없는 것이 없는	
ATTEST: HUMPHREYS INVESTMENTS, INCORPORAT	T.D.
ATTEST: HUMPHREYS INVESTMENTS, INCORPORAT	ខ្មា
Ву Ву	• - 24
ItsIts	
	(SEAL)
Ashton W. Reniers	(OLAH)
	( OT AT )
Perceval Reniers	(SEAL)

	(SEAL)
Charlotte W. Sterrett	
	(SEAL)
C. Herrold Sterrett	
	(SEAL)
Boydie C. Morton	
	40.485.490
	(SEAL)
D. Holmes Morton	
	(2747)
7	(SEAL)
Waller C. Hardy, Jr.	
	(cnar)
D H 1	(SEAL)
Charlotte P. Hardy	
	(CEAT)
2 P. Breeke in his own	(SEAL)
George E. Brooks, in his own as Agent for the heirs of W.	right and
George E. Brooks, in his own as Agent for the heirs of W.	right and
George E. Brooks, in his own as Agent for the heirs of W.  Nellie C. Brooks	right and E. Brooks
as Agent for the heirs of w.	right and E. Brooks
as Agent for the heirs of w.	right and E. Brooks
as Agent for the heirs of w.	right and E. Brooks  (SEAL)
Nellie C. Brooks	right and E. Brooks  (SEAL)
Nellie C. Brooks  Lillian L. Buck, Trustee	right and E. Brooks  (SEAL)
Nellie C. Brooks	right and E. Brooks  (SEAL)
Nellie C. Brooks  Lillian L. Buck, Trustee	right and E. Brooks  (SEAL)
Lillian L. Buck, Trustee	right and E. Brooks  (SEAL)  (SEAL)
Nellie C. Brooks  Lillian L. Buck, Trustee  Bradford B. Laidley, Trustee	right and E. Brooks  (SEAL)  (SEAL)

STATE OF WEST VIRGINIA, COUNTY OF GREENBRIER, TO-WIT:	
I,	, a Notary Public of said County
of Greenbrier, State of West Virgini	a, do certify that FRANK A. HARDY and
KATHERINE S. HARDY, his wife, whose	names are signed to the within writing
bearing date the 1st day of April, 1	963, have this day acknowledged the same
before me in my said County.	
Given under my hand and	notarial seal, this day of,
1963.	
My commission expires	·
	Notary Public
OWANT OF MELL TERCEV	
STATE OF NEW JERSEY, COUNTY OF BERGEN, TO-WIT:	
I,	, a Notary Public of said County
of Bergen, State of New Jersey, do c	ertify that HELEN M. HOGE, widow, whose
name is signed to the within writing	bearing date the 1st day of April, 1963,
has this day acknowledged the same b	efore me in my said County.
Given under my hand and	notarial seal, this day of,
1963.	
My commission expires	•
	Notary Public
STATE OF CALIFORNIA,	
COUNTY OF RIVERSIDE, TO-WIT:	
I,	, a Notary Public of said County
of Riverside, State of California, d	o certify that KENNETH M. BOWYER, JR., and
MARION C. BOWYER, his wife, whose na	mes are signed to the within writing bear-
ing date the 1st day of April, 1963,	have this day acknowledged the same
before me in my said County.	
Given under my hand and 1963.	notarial seal, this day of,
My commission expires	
-	Notary Public

STATE OF FLORIDA COUNTY OF PINELLAS, TO-WIT:
I, Donnal C. Mances, a Notary Public of said County
of Pinellas, State of Florida, do certify that MARY BOWYER GARRETT and BRUCE
A. GARRETT, her husband, whose names are signed to the within writing bearing
date the 1st day of April, 1963, have this day acknowledged the same before
me in my said County.
Given under my hand and notarial seal, this 30 day of april,
My commission expires My Commission Expires Sept, 16, 1966  Notary Public State of Florida at Large My Commission Expires Sept, 16, 1966  Notary Public State of Florida at Large My Commission Expires Sept, 16, 1966
Notary Public
STATE OF WEST VIRGINIA, COUNTY OF KANAWHA, TO-WIT:
I,, a Notary Public of said County
of Kanawha, State of West Virginia, do certify that MARGARET C. JONES, widow,
whose name is signed to the within writing bearing date the 1st day of April,
1963, has this day acknowledged the same before me in my said County.
Given under my hand and notarial seal, this day of, 1963.
Given under my hand and notarial seal, this day of,  1963.  My commission expires
1963.
1963.
My commission expires
My commission expires  Notary Public  STATE OF COLORADO, COUNTY OF ARAPAHOE, TO-WIT:  I,, a Notary Public of said County of Arapahoe, State of Colorado, do certify that, who signed the within writing bearing date the lst day of April, 1963, for HUMPHREYS INVESTMENTS, INCORPORATED, a corporation, has this day in my said
My commission expires  Notary Public  STATE OF COLORADO, COUNTY OF ARAPAHOE, TO-WIT:  I,
Notary Public  STATE OF COLORADO, COUNTY OF ARAPAHOE, TO-WIT:  I,, a Notary Public of said County  of Arapahoe, State of Colorado, do certify that,  who signed the within writing bearing date the lst day of April, 1963, for HUMPHREYS INVESTMENTS, INCORPORATED, a corporation, has this day in my said  County, before me, acknowledged the said writing to be the act and deed of said corporation.  Given under my hand and notarial seal, this day of,

Notary Public

