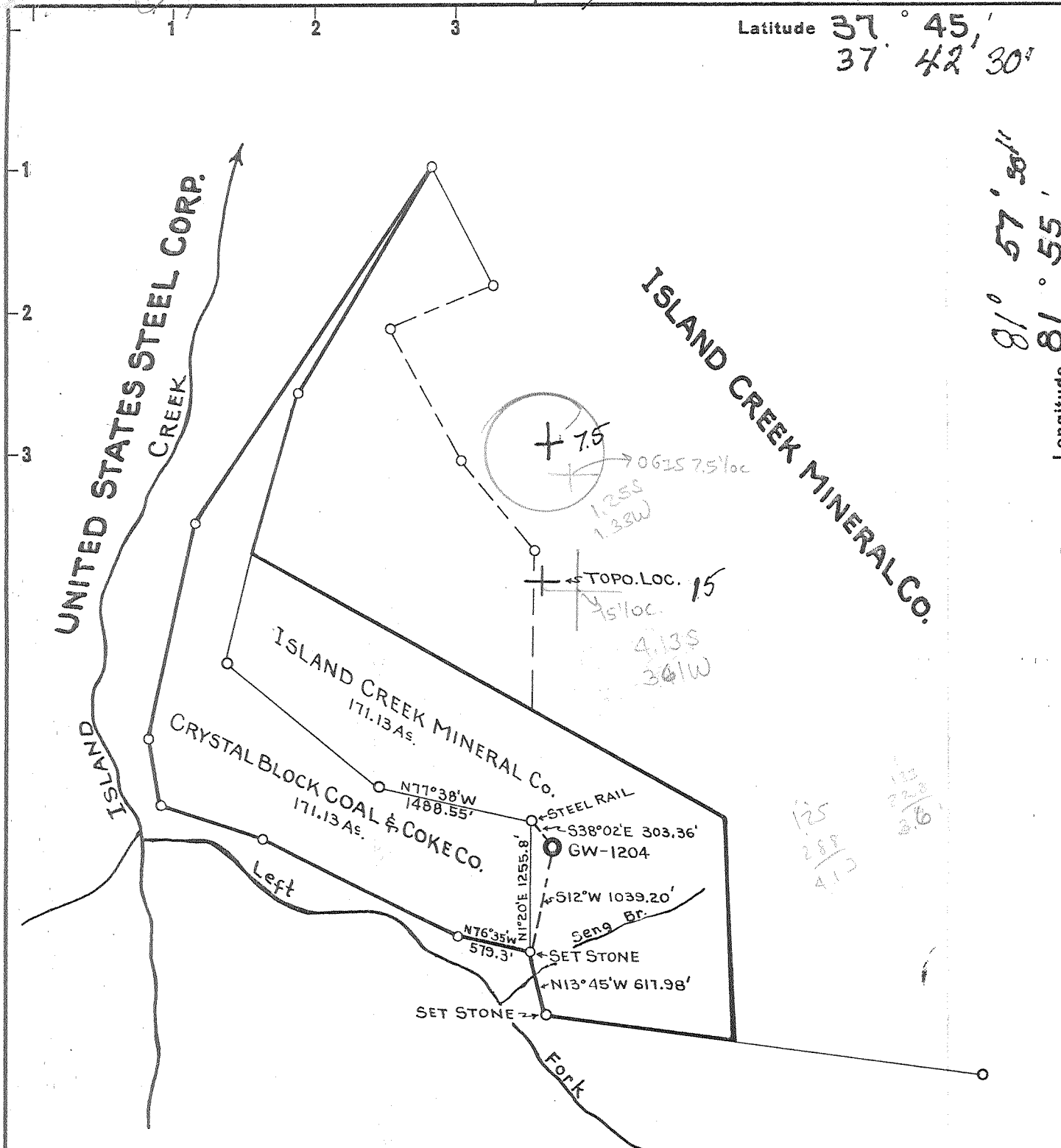


Latitude $37^{\circ} 45'$
 $37^{\circ} 42' 30''$

Longitude $81^{\circ} 57' 50''$
 $81^{\circ} 55'$



New Location...
 Drill Deeper... - 7/30/87
 Abandonment...

Cities Service Oil & Gas Co. of WVa. 169
 Compai P.O. Box 873 - Charleston, WVa. 25323
 Address Surface: Gaddy Engineering Company
 Farm CRYSTAL BLOCK COAL & COKE CO. et al CONSOL.
 Tract _____ Acres 342.26 Lease No. WU-142
 Well (Farm) No. 1 Serial No. GW-1204
 Elevation (Spirit Level) 1757.88'
 Quadrangle GILBERT 15' MAN 7.5' 456 049 NW,
 County LOGAN District LOGAN 2
 Engineer Wanda Moore
 Engineer's Registration No. 2113
 File No. _____ Drawing No. W-6-54
 Date JULY 19 1954 Scale 1" = 1320'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. LOG-416-DD

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

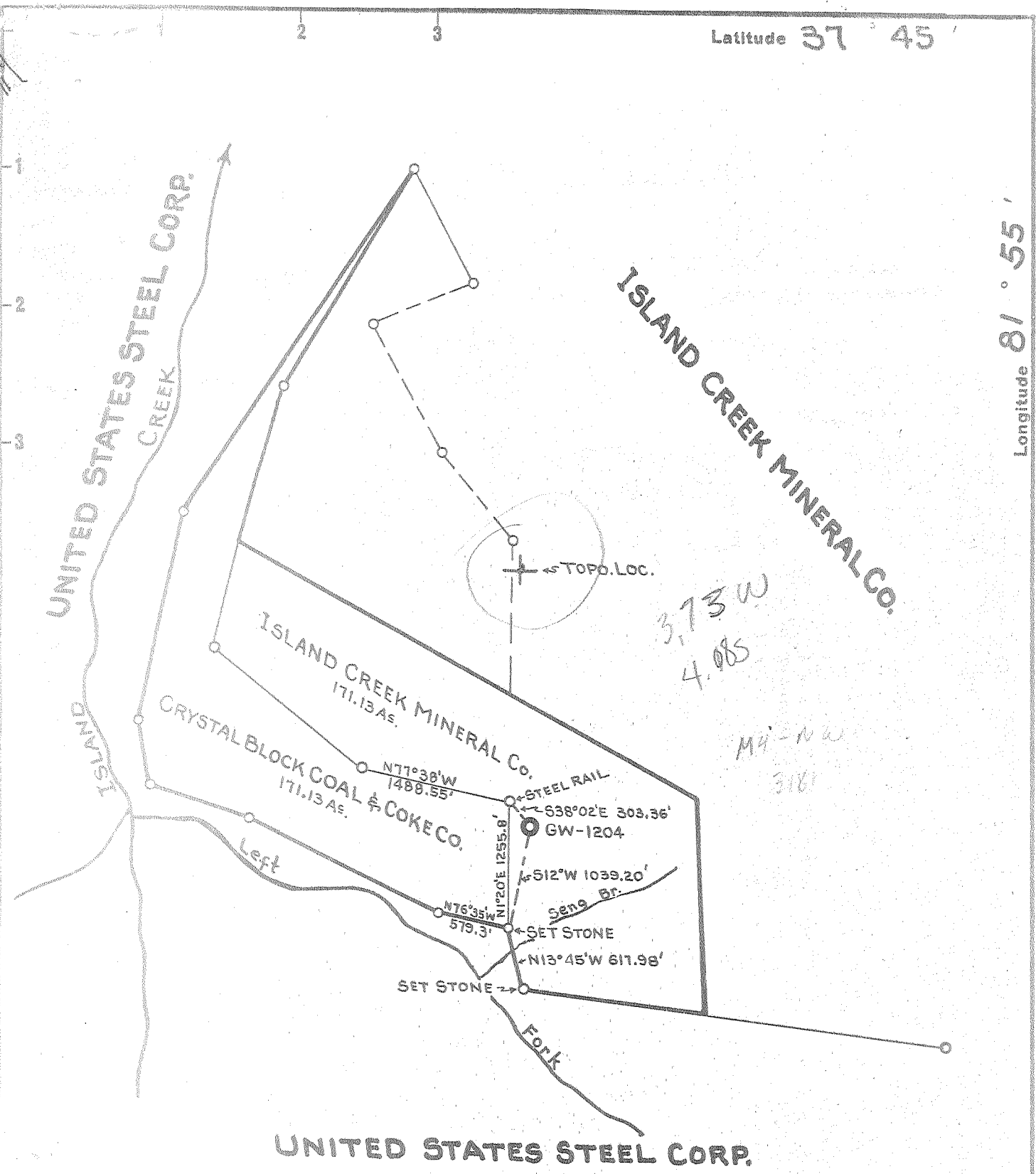
- Denotes one inch spaces on border line of original tracing. 47-045

DEEP WELL 5770' Dev. State
 DWDD - 2nd deservise 6-6 Magnolia (265)

AUG 03 1987
 AUG 03 1987

Latitude 37 45

Longitude 81 55



UNITED STATES STEEL CORP.

- New Location
- Drill Deeper
- Abandonment

Company	COLUMBIAN CARBON COMPANY
Address	BOX 873 CHARLESTON W.VA.
Farm	CRYSTAL BLOCK COAL & COKE CO. et al CONSOL.
Tract	Acres 342.26 Lease No. WU-142
Well (Farm) No.	1 Serial No. GW-1204
Elevation (Spirit Level)	1757.99'
Quadrangle	GILBERT 3 S-405 W-370
County	LOGAN District LOGAN
Engineer	Wanda Moore
Engineer's Registration No.	2113
File No.	Drawing No. W-6-54
Date	JULY 19 1954 Scale 1" = 1320'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. LOG-416

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

-- Denotes one inch spaces on border line of original tracing.

6-6 265



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 4

WELL RECORD

Oil or Gas Well Gas
(KIND)

Quadrangle Gilbert 3 SW

Permit No. LOG-416

Company Columbian Carbon Company
Address Box 873, Charleston 23, W. Va.
Farm Crystal Block Coal & Coke Co Acres 342.26
Location (waters) Left Fork of Island Creek-
Well No. 1 - (GL-120) Elev. 1757.88' G
District Logan County Logan
The surface of tract is owned in fee by Crystal Block C.&C.
Attn: Mr. J.M. Tully Address Rawl, W. Va.
Mineral rights are owned by Crystal Block C.&C. Co, etal
(For further addresses contact C.C.C.)
Address _____
Drilling commenced 9-21-54
Drilling completed 1-29-55
Date Shot not shot From _____ To _____
With _____

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16"	17'4"	17'4"	Kind of Packer <u>M.B.H.</u>
13 3/8" 48#	603'	186'5"	
10 3/4" 32#	852'2"	852'2"	Size of <u>13-3/8"</u>
8 1/4" 24#	2266'	pulled	
6 3/4" 24#	2997'7"	2997'7"	Depth set <u>603' SLM</u>
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

Open Flow 150 /10ths Water in _____ Inch
7" 23# /10ths Merc. in _____ Inch
Volume 19,290,000 Cu. Ft.
Rock Pressure 585 lbs. 5 das 26 hrs.
Oil show at 1190' bbls., 1st 24 hrs.
Fresh water 508' 620' feet
Salt water 1115' 1843' 1858' feet 1870' 2683' feet

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
see reverse side

COAL WAS ENCOUNTERED AT 60 FEET 24 INCHES
272 FEET 36 INCHES 420 FEET 48 INCHES
508 FEET 12 INCHES 556 FEET 48 INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Surface			0	17			
Sand			17	57			
Slate			57	60			
Coal			60	62			
Slate			62	80			
Sand			80	135			
Slate			135	150			
Sand			150	210			
Slate			210	219			
Sand			219	265			
Slate			265	272			
Coal			272	275			
Slate & Shells			275	295			
Sand			295	358			
Slate			358	420			
Coal			420	424			
Slate			424	427			
Sand			427	448			
Slate			448	508			
Coal abandoned			508	509	F. water	508'	hole full
Sand			509	522			
Slate			522	525			
Coal			525	530			
Slate			530	542			
Sand			542	556			
Coal			556	560			
Slate			560	565			
Sand			565	590			
Slate			590	602			
Sand			602	620	F. water	620'	hole full
Slate & Shells			620	655			
Sand			655	673			
Lime			673	705			
Sand			705	743			
Lime			743	753			
Sand			753	763			
Slate			763	887			
Sand			887	940			
Slate			940	1106			

Formation	Color	Hard or Soft	Top <u>4</u>	Bottom	Oil, Gas or Water	Depth Found	Remarks	
Lime			1106	1115	S. water	1115'	1 1/4 10" blr/hr.	
Sand			1115	1167				
Slate			1167	1187				
Sand			1187	1255	Oil	1190'	show	
Slate			1255	1300				
Sand			1300	1354				
Slate & Shells			1354	1383				
Sand			1383	1519				
Slate & Shells			1519	1533				
Sand			1533	1595				
Slate & Shells			1595	1620				
Lime			1620	1627				
Sand			1627	1788	Gas	1741'	show	
Slate			1788	1791	S. water	1843'	hole full	
Sand			1791	2182	S. water	1858'		
Lime			2182	2186	S. water	1870'	hole full	
Slate & Shells			2186	2368				
Sand	2240' DLM-2249' SLM		2368	2386				
Lime Shells			2386	2454				
Red Rock			2454	2558				
Lime			2558	2635	S. water	2683'	1-8" blr/hr. exh. to 1/3 blr/	
Sand			2635	2753				
Lime			2753	2798				
Slate & Shells			2798	2855				
Sand			2855	2870				
Slate			2870	2906				
Pencil Cave			2906	2909' DLM	Gas gauges:			
				2911' SLM	3152-54' 18/10 W. 1" 44		730 cu. ft.	
Big Lime	2970' DLM-2972' SLM		2909' DLM	3174-76' 9/10 W. 7" 23#			1,281 MCF	
			2911' SLM	3176-91' est. 150/10 M. 7" 23#			-	
							19,290 MCF - blew mercury out of gauge.	
			TOTAL DEPTH - - - - -	3191'				
CASING RECORD								
10-8-54	-		13-3/8" casing 48# - ran at 603' SLM with shoe and packer.					
10-14-54	-		10-3/4" casing ran with shoe 845' SLM - ran 275 sacks Alpha cement. Pumped plug to 797'. Ran 1-1/2" tubing between 10" and 13" to 250'. Pumped 75 sacks cement down tubing - pulled tubing - pipe set on bottom.					
10-20-54	-		8-5/8" casing ran at 2249' SLM - did not aquagel					
1-19-55	-		6-5/8" casing ran at 2972' SLM - ran 22 sacks Aquagel. Got circulation and returns.					

RECOMMENDATION OF WITNESSES

Date February 10, 1955

APPROVED

Columbian Carbon Company

Owner



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Quadrangle Gilbert 3 SW

Permit No. LOG-416D

WELL RECORD
DRILLED DEEPER

Oil or Gas Well Gas
(KIND)

Company Columbian Carbon Company
Address Box 873, Charleston 23, W. Va.
Farm Crystal Block Coal & Coke Co. 342.26
Location (waters) Left Fork of Island Creek
Well No. 1 - GW-1204 Elev. 1757.88'
District Logan County Logan
The surface of tract is owned in fee by Crystal Block Coal & Coke Co
Attn: J. M. Tully Address Rawl, W. Va.
Mineral rights are owned by Crystal Block Coal and Coke Co., et al
(for further add. contact C. C. C.)
Address _____
Drilling commenced DD 4-24-61
Drilling completed DD 4-26-61
Date Shot not shot From _____ To _____
With _____
Open Flow 22 /10ths Water in 1 Inch
_____/10ths Merc. in _____ Inch
Volume 49,430 Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED not acidized
WELL FRACTURED not fractured

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			
10	no additional pipe run when deepened		Size of
8 1/4			
6 5/8			Depth set
5 3/16			
3			Perf. top
2 3/8" 4.6# 3200' 11"		pulled	Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES

RESULT AFTER TREATMENT drilling deeper 6/10 W. 6-5/8" 24# = 906MCF

ROCK PRESSURE AFTER TREATMENT _____

Fresh Water _____ Feet Salt Water _____ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
<u>Old Total Depth</u>							
Big Lime			2911'SLM	3191'			(reported as original total depth-when we strung in to deepen found T. D. 3183')
<u>Drilled Deeper</u>							
Big Lime			3183'	3214'	Gas: 3187' incr. from 49,430 cu. ft. to 30/10 W. 3" = 520MCF 3194' incr. from 520MCF to 6/10 W. 6-5/8" 24# = 906MCF		
Big Injun			3214'	3231'			
Total depth				3231'			

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

Devonian Shale 5652-5273. Frac'd w/ 60,000# 20/40 sd, 788 MSCF N2, TL&T 202, 35 BPM Foam.
 Devonian Shale 4885-5212. Frac'd w/ 60,000# 20/40 sd, 986 MSCF N2, TL&T 157, 35 BPM Foam.
 Devonian Shale 4184-4751. Frac'd w/ 80,000# 20/40 sd, 835 MSCF N2, TL&T 142, 30 BPM Foam.

RECEIVED
 MAR 25 1988

DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Big Lime			2911	3240	
Sunbury Shale			3240	3815	
Berea			3815	3865	
Devonian Shale			32 865	5735	
Onondaga			5735	5784	

now TD 5784
 old TD 3231

 now TD 2553

(Attach separate sheets as necessary)

Cities Service Oil and Gas Corporation
 Well Operator

By: *Paul D. Phillips*, Operations Manager

Date: March 11, 1988

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 ~~and~~, encountered in the drilling of a well."

1034

FORM WV-2 (B) FILE COPY
RECEIVED
JUL 14 1987



1) Date: 5/28, 1987
2) Operator's Well No. Crystal Block "A" #1, GW-1204
3) API Well No. 47 State 045 County 416D Permit

STATE OF WEST VIRGINIA
DIVISION OF OIL & GAS DEPARTMENT OF ENERGY, OIL AND GAS DIVISION
APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil _____ / Gas X / B (If "Gas", Production X / Underground storage _____ / Deep _____ / Shallow X)
- 5) LOCATION: Elevation: 1758 Watershed: Left Fork of Island Creek District: Logan 2 County: Logan 45 Quadrangle: Gilbert 15
- 6) WELL OPERATOR Cities Service Oil CODES Corp. 7) DESIGNATED AGENT Paul D. Phillips
Address P. O. Box 873 Address P. O. Box 873
Charleston, WV 25323 9800 Charleston, WV 25323
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Jerry Holcomb Address Route 2, Box 159 Hwy. #34
Hamlin, WV 25523
- 9) DRILLING CONTRACTOR: Name Unknown at this time Address _____
- 10) PROPOSED WELL WORK: Drill _____ / Drill deeper X / Redrill _____ / Stimulate _____
Plug off old formation _____ / Perforate new formation X / Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Devonian Shale
- 12) Estimated depth of completed well, 5770 feet 1115, 1843, 1858,
- 13) Approximate trata depths: Fresh, 508, 620 feet; salt, 1870, 2683 feet.
- 14) Approximate coal seam depths: 60, 272, 420, 508, 525, Is coal being mined in the area? Yes _____ / No _____
- 15) CASING AND TUBING PROGRAM 556

CASING OR TUBING TYPE	Size	Grade	Weight per ft.	Existing		FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
				New	Used	For drilling	Left in well		
Conductor	16				X	17	17		Kinds M.B.H.
Fresh water	13-3/8		48		X	603	187		
Coal	10-3/4		32		X	852	852	350 sx	Sizes 13-3/8
Intermediate	8-5/8		24		X	2266	Pulled		
Production	6-5/8		24		X	2998	2998	22 bags aquagel	Perforations set 603
* Tubing	2-3/8	J-55	4.7	X		5770	5770		
Lin...									Perforations:
* Production	3-1/2	N-80	7.7	X		5770	5770	315 cuft	Top Bottom

*These will be additional tubulars

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-045-0416-DD

July 30 19 87
Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires July 30, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <input checked="" type="checkbox"/>	Plat: <input checked="" type="checkbox"/>	Fee: <u>218</u> <u>22068</u>	WCP: <input checked="" type="checkbox"/>	S&P: <input checked="" type="checkbox"/>	Other: <input type="checkbox"/>
---	--	---	---------------------------------	--	--	---------------------------------

NOTE: Keep one copy of this permit posted at the drilling location.

Director, Division of Oil and Gas

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.