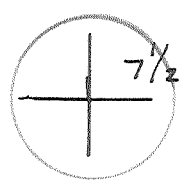


11,400'

Latitude 38° 35' 38° 32' 30"

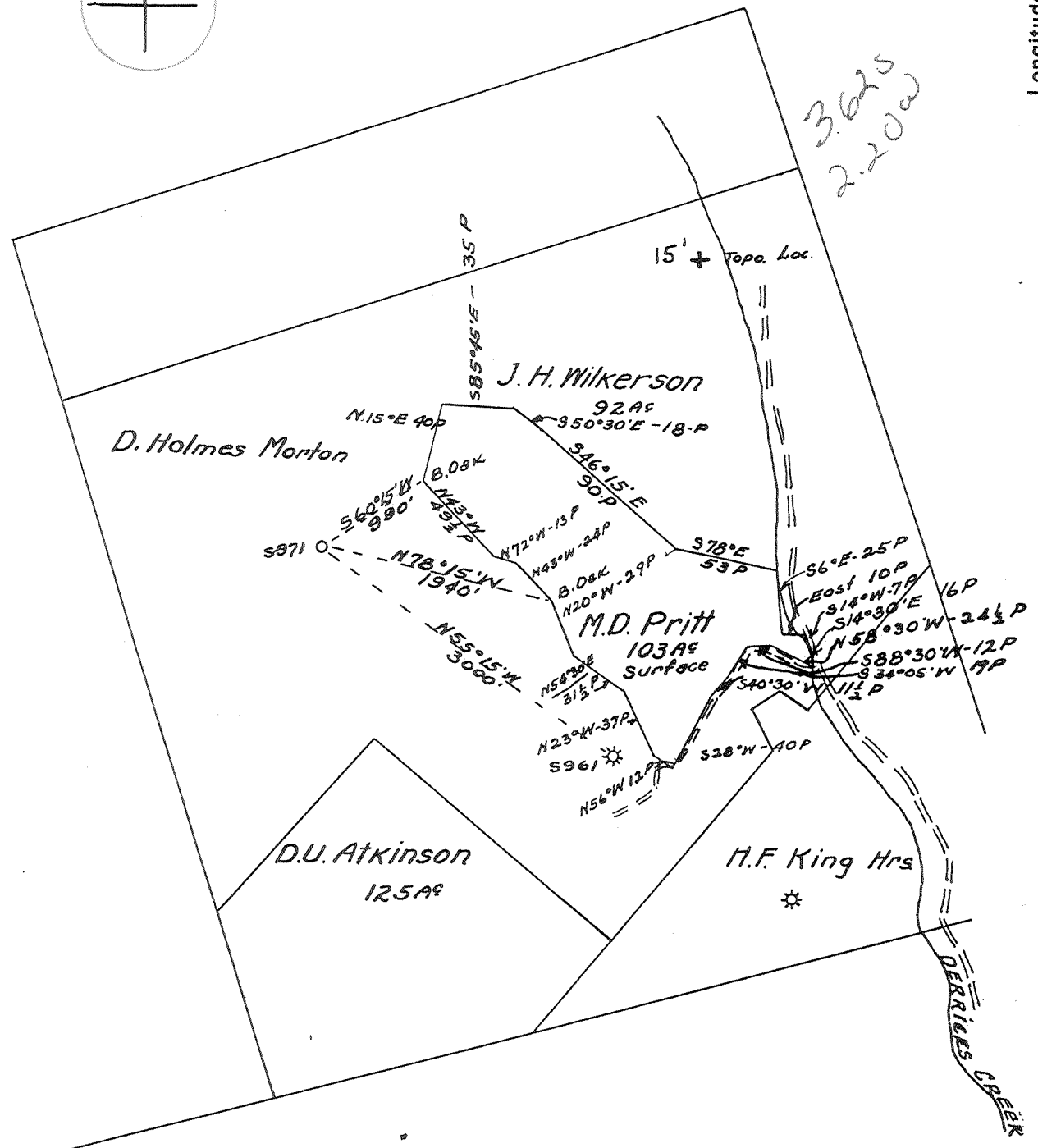
Jamie 5/2/89

0.785
2.150



4100'
04° 18'
Longitude

3.625
2.200



- New Location
- Drill Deeper
- Abandonment

Company Cabot Oil & Gas Corp. 149
 Address P.O. Box 1473, Charleston, WV 25325
 Farm D. HOLMES MORTON
 Tract _____ Acres 52.1A± Lease No. 3-467
 Well (Farm) No. 6 Serial No. 971
 Elevation (Spirit Level) _____
 Quadrangle KENNA S.W. 15/ Sissonville 7.5
 County KANAWHA District POCA 8
 Engineer Charles Sturm
 Engineer's Registration No. 975
 File No. _____ Drawing No. _____
 Date April 5, 1941 Scale 1" = 1320'

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

WELL LOCATION MAP

FILE NO. KAN-803-Re-wor 6

+ 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.

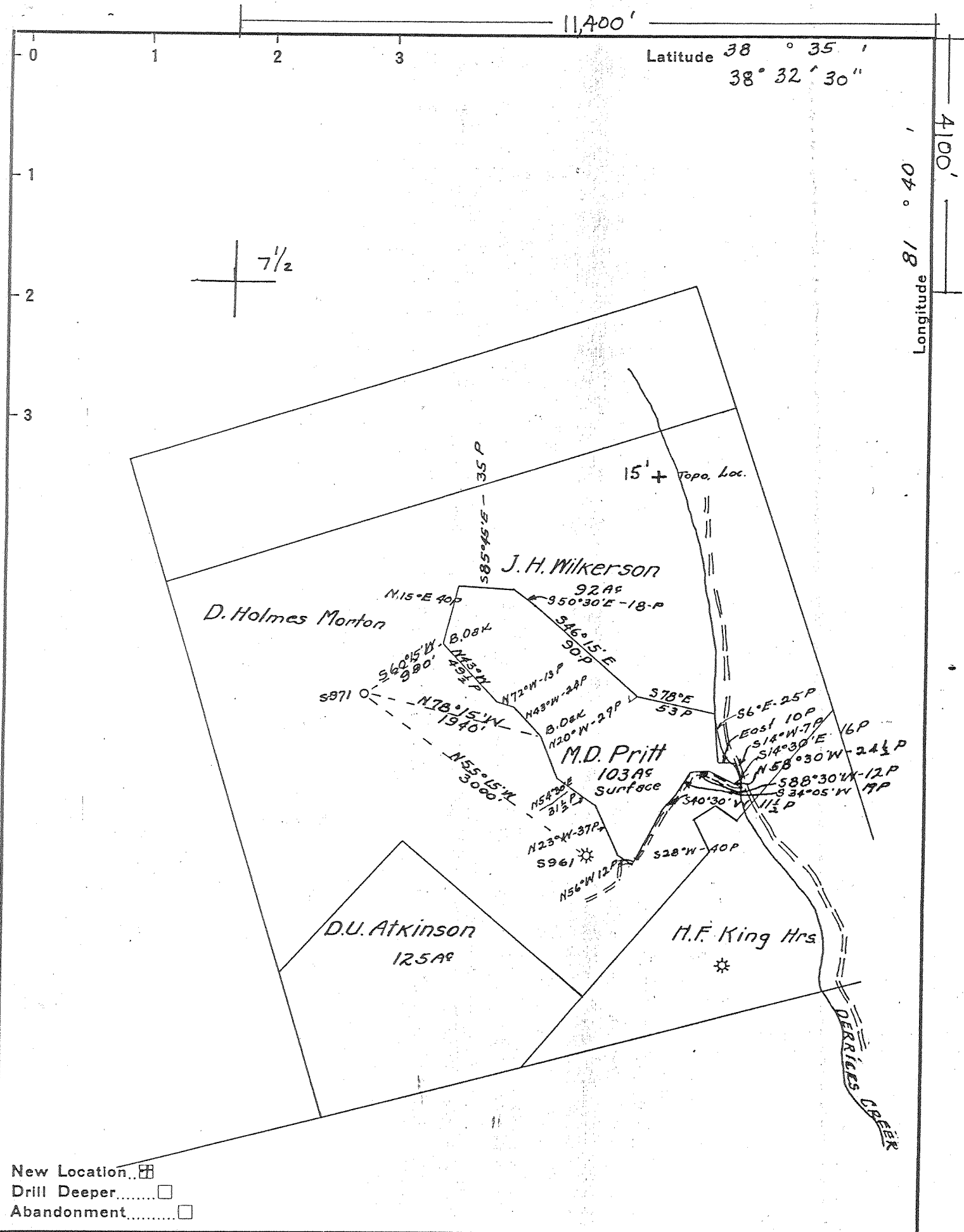
- Denotes one inch spaces on border line of original tracing.

MAY 21 1989

47-039

KAN. 803 FRAC.

Deep well 0WWD 6-6 Elk-Poca (Sissonville) (192)



New Location
 Drill Deeper
 Abandonment

Cabot Oil & Gas Corp. of WVa.
 P.O. Box 454 - Glasgow, WVa. 25086
 Surface: Charles F. Summers et al.

Farm D. HOLMES MORTON

Tract _____ Acres 521 AS Lease No. 3-467

Well (Farm) No. 6 Serial No. 971

Elevation (Spirit Level) _____

Quadrangle KENNA SW.

County KANAWHA District POCA

Engineer Charles Sturm

Engineer's Registration No. 975

File No. _____ Drawing No. _____

Date April 5, 1941 Scale 1" = 1320'

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

WELL LOCATION MAP
 FILE NO. KAN-803-Frac
 FRAC CANCELLED

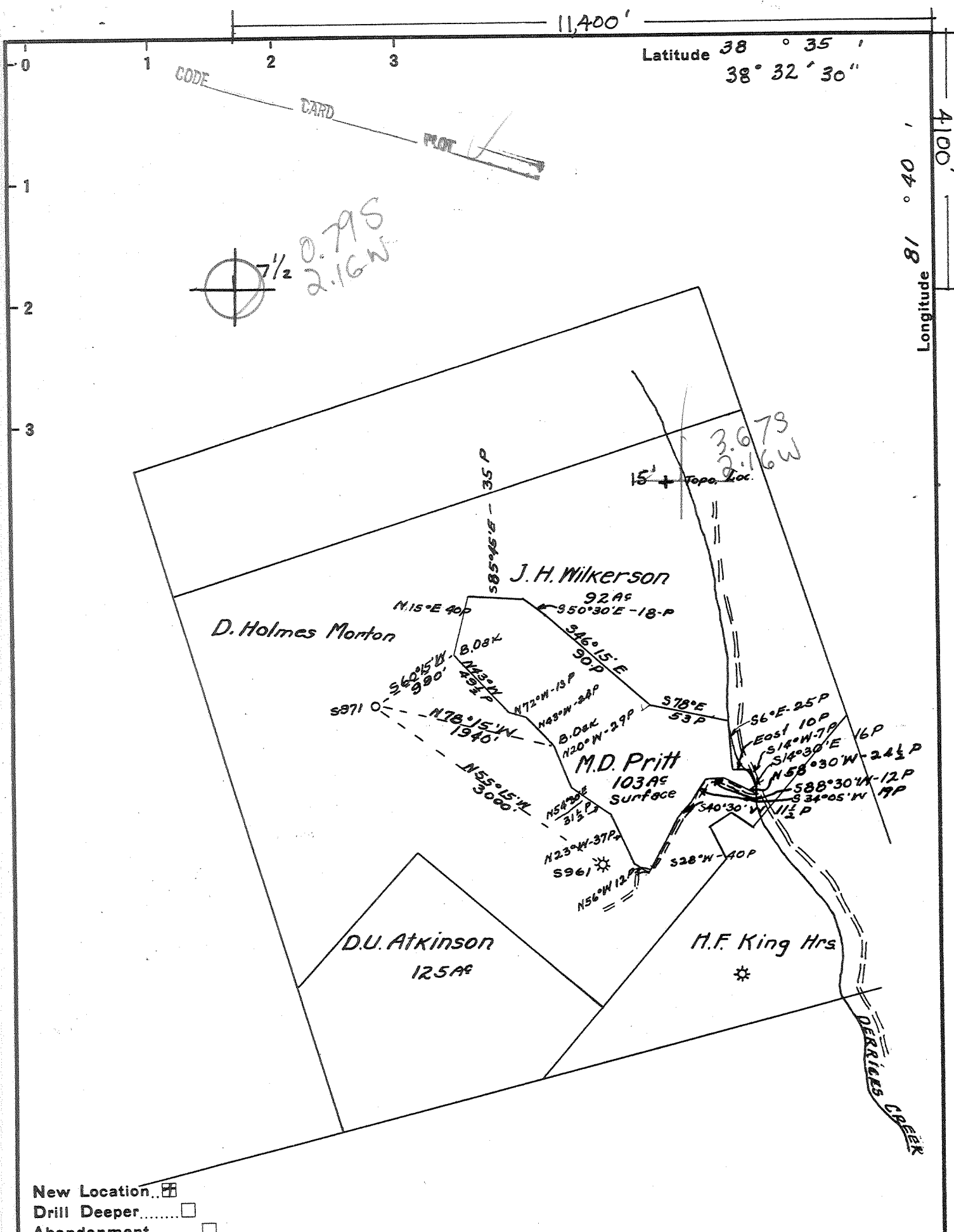
+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

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

NOV 9 1937

47-039

KAN. 803 FRAC.



New Location
 Drill Deeper
 Abandonment

Cabot Oil & Gas Corp. of WVa. 149
 P.O. Box 454 - Glasgow, WVa. 25086
 Surface: Charles F. Summers et al.

Farm D. HOLMES MORTON

Tract _____ Acres 521A Lease No. 3-467

Well (Farm) No. 6 Serial No. 971

Elevation (Spirit Level) _____

Quadrangle KENNA SW

County KANAWHA District POCA 8

Engineer Charles Sturm

Engineer's Registration No. 975

File No. _____ Drawing No. _____

Date April 5, 1941 Scale 1" = 1320'

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

WELL LOCATION MAP
 FILE NO. KAN-803-Frac

+ 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.

47-039

AUG 12 1985

M

38° 32' 30"

Latitude 38 35

0 1 2 3

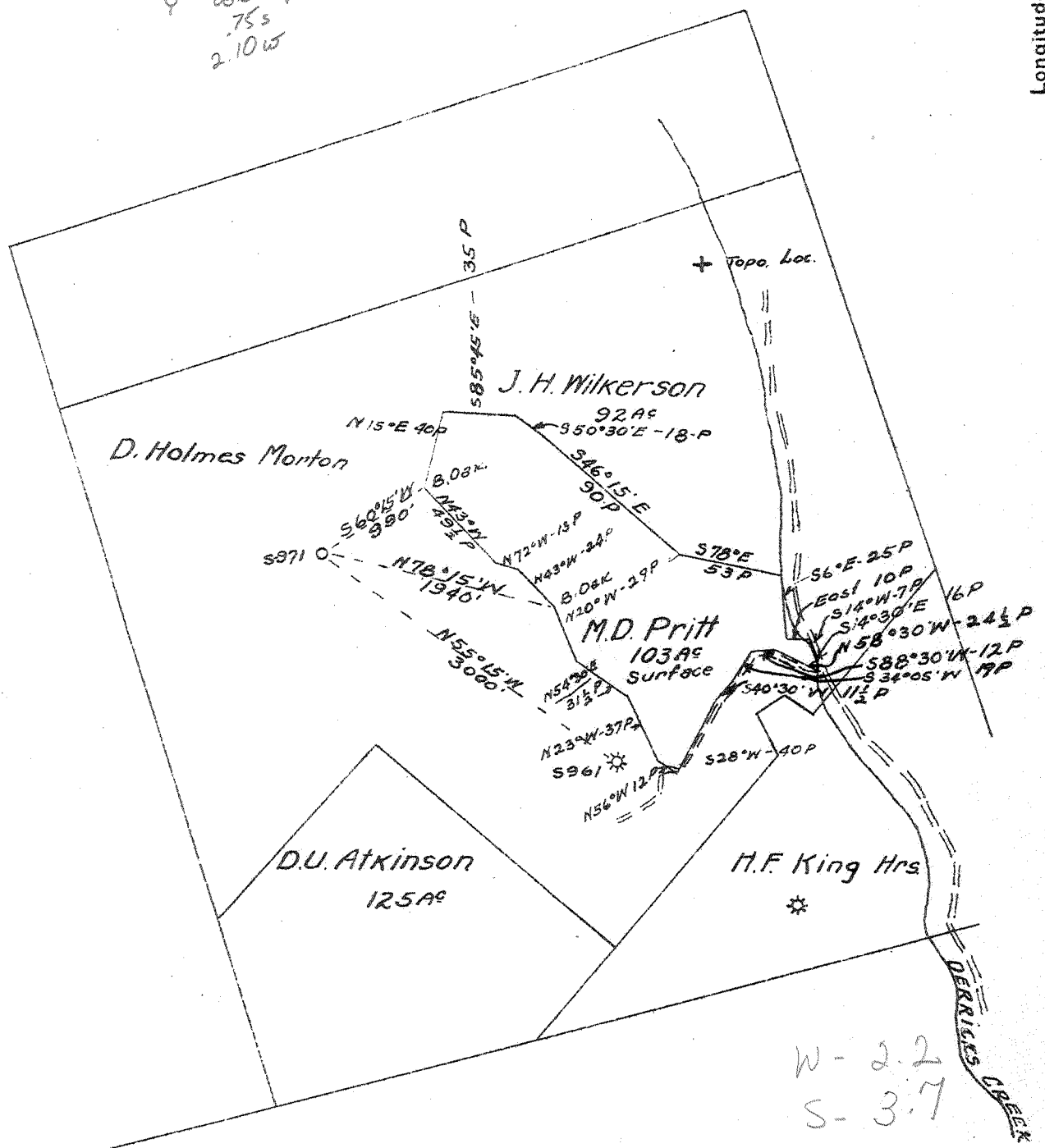
1

2

3

Longitude 81 40

7.5
OGIS map
.75s
2.10W



New Location
 Drill Deeper
 Abandonment

Company GODFREY L. CABOT INC.
 Address 600 UNION BLDG CHARLESTON WVA
 Farm D. HOLMES MORTON
 Tract _____ Acres 521A^c Lease No. 3-467
 Well (Farm) No. 6 Serial No. 971
 Elevation (Spirit Level) _____
 Quadrangle KENNA SW.
 County KANAWHA District POCA
 Engineer _____
 Engineer's Registration No. 975
 File No. _____ Drawing No. _____
 Date April 5, 1941 Scale 1" = 1320'

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

WELL LOCATION MAP
 FILE NO. KAN-803

+ 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.

✓ Deep Well

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
WELL RECORD

Permit No. Kan-803
Kenna Quad.

Gas Well

Company Godfrey L. Cabot, Inc.,
Address Charleston, W. Va.
Farm D. Holmes Morton ACRES -
Well No. 6 (Serial 971) ELEV. 958.8
District Poca - Kanawha County
Surface & Mineral -
Commenced 4/25/41 - completed 7/16/41
Shot 7/17/41 - depth 5058-5068 - 20 qts.
5068-5075 - 15 qts.
Volume 3,900,000 c.f.
Rock Pressure 1350 lbs. 54 hrs. - Oriskany
Salt Water 1615

CASING & TUBING
13 760 760
10-3/4 1838 1631
8-5/8 2125
7 4979 4979
2 3.75# 5058
4# 68

HOW CASING SET:
13" casing shoe
1 - 10 1/2 x 12 Csg. Shoe
25 sacks Aquagel.
1 - 8-5/8 x 10 1/2 x 16 B.H.
Packer, 25 Sacks Aquagel.
1 - 7" Special Oriskany
B.H.Packer - 40 sacks Aquagel - 4 sacks Fibrotex

Surface	0	8	S. Sand	1770	1786
Lime	8	48	Slate	1786	1789
Slate & Shells	48	125	S. Sand	1789	1840
Red Rock	125	160	Slate	1840	1842
Sand	160	192	Lime	1842	1849
Slate	192	230	Slate	1849	1853
Lime	230	251	Sand	1853	1863
Red Rock	251	285	Slate	1863	1865
Sand	285	318	Big Lime	1865	2023
Slate	318	335	Slate Break	2023	2025
Sand	335	360	Big Injun Sand	2025	2057 S.L.
Slate&Shells	360	380	Slate&Shells	2057	2162
Red Rock	380	403	Lime	2162	2240
Lime	403	416	Slate&Shells	2240	2490
Slate&Shells	416	430	Borca Grit	2490	2535
Red Rock	430	448	Slate&Shells	2535	3095
Slate	448	465	Brown Shale	3095	3103
Sand	465	485	Slate&Shells	3103	3720
Red Rock	485	491	Brown Shale	3720	3740
Sand	491	520	Slate&Shells	3740	3794
Red Rock	520	530	Grey Lime	3794	3922
Slate	530	560	Slate&Shells	3922	4140
Sand	560	590	Brown Shale	4140	4280
Slate	590	595	W. Slate	4280	4715
Sand	595	620	B. Shale	4715	4900
Slate	620	642	Grey Shale	4900	4930
Red Rock	642	660	Black Shale	4930	4959 S.L.
Lime	660	675	Corniferous Lime	4959	5054
Red Rock	675	685	Oriskany Sand	5054	5093 S.L.
Slate&Shells	685	720	Oriskany Lime	5093	5099
Slate	720	765 SL	Oriskany Sand	5099	5120
Slate&Shells	765	805	Hilderburg Lime	5120	5125 T.D. S.L.
Sand	805	845			
Slate	845	875			
Sand	875	900			
Slate	900	920			
Lime	920	935 SW 1615			
Slate&Shells	935	1002			
Sand	1002	1108			
Slate	1108	1116			
Sand	1116	1130			
Coal	1130	1140			
Slate	1140	1150			
Lime	1150	1185			
Slate&Shells	1185	1220			
Black Lime	1220	1314			
Slate	1314	1325			
Gray Lime	1325	1347			
White Slate	1347	1350			
Salt Sand	1350	1765			
Slate	1765	1770			

GAUGES IN ORISKANY SAND - before shot:

5058-5068	-
5058-5063	250 M
7/11	5068 379 M
7/11	5068 300 M
7/12	5070 848 M
7/12	5072 484 M
7/12	5076 408 M
7/14	5099 355 M
7/14	5105 350 M
7/15	5111 342 M
7/15	5113 342 M
7/16	5118 323 M
7/17	5124 300 M

GAUGES IN ORISKANY SAND - After Shot:

7/17 Gauge before shot 268 M
20 Min. after shot - 3,900 M

REC'D
JAN 25 1990

10-May-89
 API # 47-039-00803 W

State of West Virginia
 DEPARTMENT OF ENERGY
 Division of Oil and Gas
 Well Operator's Report of Well Work

DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

Farm name: SUMMERS, W. C. ETUX Operator Well No.: MORTON 6-S-971

LOCATION: Elevation: 958.80 Quadrangle: SISSONVILLE
 District: POCA County: KANAHWA
 Latitude: 4100 Feet South of 38 Deg. 32 Min. 30 Sec.
 Longitude: 11400 Feet West of 81 Deg. 40 Min. 0 Sec.

Company: CABOT OIL & GAS CORPORATION
 P. O. Box 1473
 Charleston, WV 25325

Agent: David G. McCluskey

Inspector: CARLOS W. HIVELY

Permit Issued: 5/10/89

Well Work Commenced: 9/4/89

Well Work Completed: 10/27/89

Verbal Plugging _____

Permission granted on: _____

Rotary Cable Rig _____

Total Depth (feet) N/A

Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N): _____

Coal Depths (ft): N/A

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
13"	760'	760'	
10-3/4"	1888'	1681'	
8-5/8"	2125'	0'	
7"	4979'	4979'	
2"		4189'	

OPEN FLOW DATA

Producing formation Shale Pay zone depth (ft) 4126-4259
 Gas: Initial open flow 0 MCF/d Oil: Initial open flow 0 Bbl/d
 Final open flow 94 MCF/d Final open flow 0 Bbl/d
 Time of open flow between initial and final tests 4 Hours
 Static rock Pressure 560 psig (surface pressure) after 144 Hours

Second Producing formation _____ Pay zone depth (ft) _____
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow _____ MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM BUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: CABOT OIL & GAS CORPORATION

By: David G. McCluskey

Date: 1-22-90

FEB 09 1990

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

Spot w/ balance cmt plug of 25 sks CL-A w/ 3% CC & 1/4# flake - 5125'-4979'.
Perforate 7" csg 4800'-4802' (8 holes). Set retainer @ 4718', failed to squeeze.
Perforate 7" csg 4652'-4658' (8 holes). Cmt through RTTS tool w/ 90 sks CL-A w/
10% salt, 2% gel & 0.5% Halad 322. Perforate Shale 4126'-4259' (18 holes). Treat
w/ 130,000# sand & 1,660,000 scf N₂ in 75Q foam. TIH w/ 139 jts 2-7/8" 8.6# NUE
10" ID tbg. Total 4189'. 7 day SICP & SITP 560#. 4 hr OF 5/10 H₂O 94 mcf/d,
wet. 90# on annulus.

FORMATION	TOP	BOTTOM
-----------	-----	--------

(WORKOVER)

*Completion for
the rework - Free*

*Only see
original for
more details
Janie 1/25/90*

GODFREY L. CABOT, INC.

WELL RECORD

JBL 28-1941
WARRANT NO. 42-32

SERIAL NO. 971 OPERATING DISTRICT **PH**
 FARM D. Holmes Morton
 COUNTY Kanawha TAX DISTRICT No. 6 LEASE NO.
 DRILLING COMMENCED April 25, 1941 STATE West Virginia
 CONTRACTOR Everett Ferrell DRILLING COMPLETED July 16, 1941

ADDRESS 1526 Lee Street, Charleston, W. Va.

ROCK PRESSURE RECORD
 Oriskany Sand 1350 lbs., in 54 hrs.
 Sand lbs., in hrs.
 Sand lbs., in hrs.

PRODUCING SAND RECORD
 Oriskany Sand, from 5054 to 5093 Init. Prod. 3,900 M. C.
 Sand, from to Init. Prod. M. C.
 Sand, from to Init. Prod. M. C.

OPEN FLOW Time, Condition:
 10ths Water Mercury in inch opening
 Volume 3,900 M. C. F.

CASING RECORD

24 HOUR PRODUCTION TEST AFTER TUBING
 M. C. F. Line Pressure
 Bbls. Oil in 24 Hours

SIZE	WEIGHT	USED IN DRILLING	LEFT IN WELL	HOW CASING SET
15"	48	760	760	12" Casing Shoe
10-3/4"	35.75	1858	1881	1 - 10-3/4" x 12" Casing Shoe 25 Sacks Aquagel
8-5/8"	24	2125	-	1 - 8-5/8" x 10-3/4" x 10" S.H. Pac 25 Sacks Aquagel
2"	24	4979	4979	1 - 2" Special Oriskany S.H. Pac 40 Sacks Aquagel - 4 Sacks Fibre

TUBED AND SHUT IN Date 7/10/41
 Packer, Size None Kind
 Set, Depth - Size Anchor
 Perf. Top 5071 Bottom 5076
 Perf. Top 5118 Bottom 5124

SHOOTING RECORD:
 Shot with 20 qts. from 5088 to 5088 Date 7-27-1941
 15 qts. from 5088 to 5078
 Gauge Before Shot 20 Min. Gauge After Shot 3.92

FORMATION	COLOR	TOP	BOTTOM	STEEL LINE MEASUREMENTS	HARD OR SOFT	OIL, GAS OR WATER	DEPTH FOUND	DISTANCE ABOVE OR BELOW S. I.	REMARKS
Surface		0	0						
Line		1	1						
Slate & Shells		27	125						
Red Rock		125	160						
Sand		160	182						
Slate		182	230						
Line		230	241						
Red Rock		241	265						
Sand		265	312						
Slate		312	336						
Sand		336	360						
Slate & Shells		360	380						
Red Rock		380	455						
Line		455	478						
Slate & Shells		478	480						
Red Rock		480	488						
Slate		488	465						
Sand		465	465						
Red Rock		465	488						
Sand		491	520						
Red Rock		520	530						
Slate		530	560						
Sand		560	590						
Slate		590	595						
Sand		595	620						

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 DEPARTMENT OF ENERGY

FEB 0 0 1990

FORMATION	COLOR	TOP	BOTTOM	STEEL LINE MEASUREMENTS	HARD OR SOFT	OIL, GAS OR WATER	DEPTH FOUND	DISTANCE ABOVE OR BELOW S. L.	REMARKS
Slate		620	642						
Red Rock		642	660						
Line		660	675						
Red Rock		675	685						
Slate & Shells		685	720						
Slate		720	765	S. L.					
Slate & Shells		765	805						
Sand		805	845						
Slate		845	875						
Sand		875	900						
Slate		900	920						
Line		920	935						
Slate & Shells		935	1002						Salt Water 1615
Sand		1002	1108						
Slate		1108	1116						
Sand		1116	1130						
Coal		1130	1140						
Slate		1140	1150						
Line		1150	1185						
Slate & Shells		1185	1220						
Black Line		1220	1314						
Slate		1314	1325						
Gray Lime		1325	1347						
White Slate		1347	1350						
Salt Sand		1350	1765						
Slate		1765	1770						
S. Sand		1770	1788						
Slate		1788	1788						
S. Sand		1788	1840						
Slate		1840	1842						
Line		1842	1849						
Slate		1849	1855						
Sand		1855	1885						
Slate		1885	1885	S. L.					
Big Line		1885	2025						
Slate Break		2025	2025						
Big Injua Sand		2025	2087	S. L.					
Slate & Shells		2087	2182						
Line		2182	2240						
Slate & Shells		2240	2490						
Baren Grit		2490	2535						
Slate & Shells		2535	3095						
Brown Shale		3095	3108						
Slate & Shells		3108	3720						
Brown Shale		3720	3740						
Slate & Shells		3740	3792						
Gray Line		3792	4140						
Slate & Shells		4140	4280						
Brown Shale		4280	4715						
V. Slate		4715	4900						
S. Shale		4900	4930						
Gray Shale		4930	4959						
Black Shale		4959	5054	S. L.					
Coraliferous Line		5054	5095	S. L.					
Oriskany Sand		5095	5095						
Oriskany Line		5095	5095						
Oriskany Sand		5095	5120						
TOTAL DEPTH							116		
Hilderburg Line		5120	5125						
Total Depth			5125	S. L.					

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 JAN 25 1930
 DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

Gauges in Oriskany Sand - Before Shot

5055 - 5055	250M
5055 - 5055	250M
6-11	5065 270M
7-11	5065 300M
7-12	5070 340M
7-12	5072 484M
7-12	5070 403M
7-14	5060 355M
7-14	5100 350M
7-16	5115 342M
7-16	5115 325M
7-17	5124 300M

Gauges in Oriskany Sand - After Shot

7-17 Gauge before shot 350M
 20 Min. after shot 3,500M

DATE _____
 APPROVED *[Signature]*

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

- 1) Well Operator: ¹⁴⁹ CABOT OIL & GAS CORPORATION ~~OF WV~~ *9/4/5* *8/50 (8) 608*
- 2) Operator's Well Number: D. Holmes Morton #6 3) Elevation: 958.8'
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) Proposed Target Formation(s): Berea, Devonian Shale *4-11*
- 6) Proposed Total Depth: 5125 feet
- 7) * Approximate fresh water strata depths: None reported.
- 8) * Approximate salt water depths: 1615'
- 9) * Approximate coal seam depths: None reported.
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: Remedially cement 7" casing for production.
Recomplete Oriskany well to the Devonian Shale and Berea Sandstone.
- 12) Dual configuration.
* Based on COGC Well CASING AND TUBING PROGRAM Record.

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS			CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	13"		48	760'	760'	Casing Shoe
Fresh Water	10-3/4"		35.75	1888'	1681'	Casing Shoe 25 sks Aquagel
Coal						
Intermediate	8-5/8"		24	2125	0'	-
Production	7"		24	4979'	4979'	40 sks Aquagel 4 sks Fibrotex
Tubing	2"		3.75	0'	5121'	<i>390SR18-11.2.2</i>
Liners						

PACKERS : Kind Special Oriskany B. H. Packer
 Sizes 7" OD
 Depths set 4979'

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APR 24 1989

For Division of Oil and Gas Use Only

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond Blanket Agent
 (Type)

8772
019212
10

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APR 24 1989

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Date: April 20, 1989
Operator's well number
D. Holmes Morton #6
API Well No: 47 - 39 - 00803 F
State - County - Permit

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

4) Surface Owner(s) to be served:
(a) Name W. C. Summers, et ux
Address 2144 Derricks Creek Rd.
Sissonville, WV 25320
(b) Name Dana K. Page, et ux
Address 344 - 19th Street
Dunbar, WV 25064
(c) Name _____
Address _____
6) Inspector Carlos W. Hively
Address 223 Pinch Ridge Rd.
Elkview, WV 25071
Telephone (304)- 965-6069

5) (a) Coal Operator:
Name NOT OPERATED
Address _____
(b) Coal Owner(s) with Declaration
Name Same as Oil & Gas Owners
Address _____
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

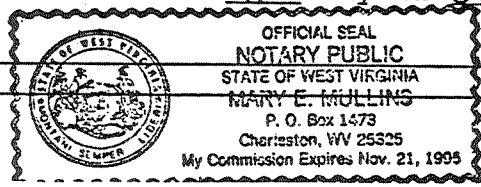
_____ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
x Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)
I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties, by:
_____ Personal Service (Affidavit attached)
x Certified Mail (Postmarked postal receipt attached)
_____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.
Well Operator QANTON OIL & GAS CORPORATION OF WV
By: [Signature]
Its: _____ Drilling Superintendent
Address _____ P. O. Box 1473
_____ Charleston, WV 25325
Telephone _____ (304) 347-1600

Subscribed and sworn before me this 21st day of April, 1989

Mary E. Mullin
My commission expires _____



Notary Public
Nov. 21, 1995



1) Date: July 9, 19 85
 2) Operator's Well No. D. Holmes Morton #6
 3) API Well No. 47 039 0803 Frac Permit

RECEIVED
 State _____ County _____
 JUL 12 1985

STATE OF WEST VIRGINIA
 DEPARTMENT OF ~~MINES~~ OIL AND GAS DIVISION
ENERGY
 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: 880 Watershed: Frog Creek of Pocahontas River
 District: Union County: Kanawha Quadrangle: Sissonville 7 1/2'
- 6) WELL OPERATOR Cabot Oil & Gas Corp. of W.V. 7) DESIGNATED AGENT Robert E. Horrell
 Address P.O. Box 454 Address P.O. Box 454
Glasgow, W.V. 25086 8150 Glasgow, W.V. 25086
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Carlos W. Hively Name _____
 Address 223 Pinch Ridge Road Address _____
Elkview, W.V. 25071
- 10) PROPOSED WELL WORK: Drill _____ / Drill deeper _____ / Redrill _____ / Stimulate X /
 Plug off old formation X / Perforate new formation X /
 Other physical change in well (specify) Plug back Oriskany
- 11) GEOLOGICAL TARGET FORMATION, Huron Shale (401)
 12) Estimated depth of completed well, 4400 feet
 13) Approximate strata depths: Fresh, NR feet; salt, 1615 feet.
 14) Approximate coal seam depths: 1130-40' Is coal being mined in the area? Yes _____ / No _____

15) CASING AND TUBING PROGRAM **WORKOVER**

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh water	13		48			Existing	760'	on shoe	
Coal									Sizes
Intermediate	10		35.75			"	1681'	on Shoe	
Production	7		24			"	4979'	4 sks	Depths set
Tubing	2		3.75			"	5058'	Fibrotex	
Liners									Perforations:
	1 1/2"	J-55	2.75	X		Proposed	4300'		Top Bottom

- (1) Set 7" bridge plug @ 4900'. Dump 2 sks cal-seal. (3) Set cement retainer @ 4400'.
 (2) Gel hole 4900-4400'. (4) Squeeze cement 7" casing 4450'-3800'.

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-039-0803 Frac Date August 6 19 85

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 August 6, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <u>ARB</u>	Plat: <u>MH</u>	Casing: <u>MH</u>	Fee: <u>15003</u>
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[Signature]
 Director, Division of Oil and Gas

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

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

File