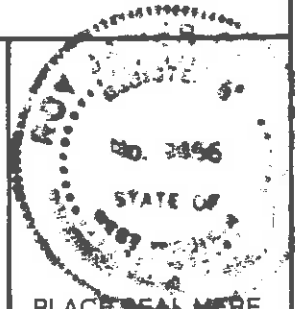


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. 85040  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 IN 1000  
 PROVEN SOURCE OF ELEVATION INTERSECTION  
± 800' NW OF LOCATION

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.

(SIGNED) Roy J. Capper  
 R.P.E. 456 L.L.S. \_\_\_\_\_



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



DATE 8 JUNE 19 85  
 OPERATOR'S WELL NO. H.V. SUMMERS #1  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS,") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 12467 WATER SHED LINE CREEK OF PETERS CREEK  
 DISTRICT JEFFERSON 4 COUNTY NICHOLAS  
 QUADRANGLE LOCKWOOD T.S 441 Clay 028 SE 9  
 SURFACE OWNER HAYMOND VAN SUMMERS, JR. ACREAGE 44  
 OIL & GAS ROYALTY OWNER H.V. SUMMERS, JR. LEASE ACREAGE 44  
 LEASE NO. \_\_\_\_\_

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON  CLEAN OUT AND REPLUG   
 TARGET FORMATION INTUN ESTIMATED DEPTH 2100'  
 WELL OPERATOR D.C. MALCOLM, INC. 549 DESIGNATED AGENT DUNCAN C. MALCOLM  
 ADDRESS 1006 COMMERCE SQUARE ADDRESS 1006 COMMERCE SQUARE  
CHARLESTON, WEST VIRGINIA 25301 CHARLESTON, WEST VIRGINIA 25301

6-6 Gauley Mountain (263)

JUL 29 1985

FORM IV-6 (8-78)  
 H.T. HALL

COUNTY NAME  
 PERMIT



DEPARTMENT OF ENERGY  
OIL AND GAS

WR-35

Date June 16, 1986  
Operator's \_\_\_\_\_  
Well No. #2  
Farm H. V. Summers  
API No. 47-067-609

JUN 17 1986

State of West Virginia

DEPARTMENT OF ENERGY  
Oil and Gas Division

WELL OPERATOR'S REPORT  
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil \_\_\_ / Gas x / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ /  
(If "Gas," Production x / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow x /)

LOCATION: Elevation: 1241.7' Watershed Line Creek of Peters Creek  
District: Jefferson County Nicholas Quadrangle Lockwood 7.5'

COMPANY D. C. Malcolm, Inc.  
ADDRESS 1006 Commerce Sq. Charleston, WV  
DESIGNATED AGENT D. C. Malcolm  
ADDRESS 1006 Commerce Sq., Charleston, WV  
SURFACE OWNER Haymond Van Summers  
ADDRESS Rt. 2, Box 188, Bealeton, VA 22712  
MINERAL RIGHTS OWNER Same as surface  
ADDRESS Same  
OIL AND GAS INSPECTOR FOR THIS WORK Craig  
Duckworth ADDRESS Gassaway, WV  
PERMIT ISSUED 7-17-85  
DRILLING COMMENCED 10-25-85  
DRILLING COMPLETED 10-31-85  
IF APPLICABLE: PLUGGING OF DRY HOLE ON  
CONTINUOUS PROGRESSION FROM DRILLING OR  
REWORKING. VERBAL PERMISSION OBTAINED  
ON \_\_\_\_\_

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cord.			
13-10"			
9 5/8	452'	452'	150 sx (surf)
8 5/8			
7			
5 1/2			
4 1/2	2068'	2068'	200 sx (700')
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Injun Sand Depth 1930 feet  
Depth of completed well 2130 feet Rotary x / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh \_\_\_\_\_ feet; Salt \_\_\_\_\_ feet  
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA  
Producing formation Big Lime Pay zone depth 1742-47', 1786-92'  
1880-88' feet  
Gas: Initial open flow Show Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 311 Mcf/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests 4 hours  
Static rock pressure 235 psig (surface measurement) after 72 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation Maxton Pay zone depth 1446-66'  
1475-95' feet  
Gas: Initial open flow Show Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 984 Mcf/d Oil: Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests 4 hours  
Static rock pressure 50 psig (surface measurement) after 72 hours shut in

1295  
map  
FDE for  
well

JUN 23 1986

(Continue on reverse side)

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

Perforated Big Lime 1800'-1888' w/17 holes and 1786'-1792' w/13 holes.  
Acidized w/2500 gal. 15% HCl.

Perforated Big Lime 1742'-1747' w/21 holes. Acidized w/1000 gal. 28%  
and 2000 gal. 15% HCl.

Perforated Maxton 1475'-1495' w/81 holes and 1446'-1466' w/81 holes.  
Frac with 750 gal. HCl, 468 bbls water, 60,000# 20/40 sand,  
120,000 SCF N<sub>2</sub>, and 20 perf balls.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
			0	42	
Sand			42	302	
Sand & Shale			302	585	
Sand			585	700	
Sand & Shale			700	800	
Sand			800	1201	
Sand & Shale			1201	1246	
Sand			1246	1426	
Sand & Shale			1426	1502	
Sand Maxton			1502	1580	
Shale			1580	1638	
Lime			1638	1672	
Shale			1672	1930	
Lime			1930	1940	
Sand			1940	2130	
Shale					Total Depth

(Attach separate sheets as necessary)

D. C. Malcolm, Inc.  
Well Operator

By: *Douglas C. Malcolm*

Date: June 16, 1986

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  
minerals, encountered in the drilling of a well."



1) Date: June 24, 19 85  
 2) Operator's Well No. H. V. Summers #1  
 3) API Well No. 47-067-0609 State West Virginia County Peters Permit Oil & Gas

**RECEIVED**  
 JUN 25 1985

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

- 4) WELL TYPE: A Oil  / Gas  /  
 B (If "Gas", Production  / Underground storage  / Deep  / Shallow  )  
 5) LOCATION: Elevation: 1241.7' Watershed: Line Creek of Peters Creek  
 District: Jefferson County: Nicholas Quadrangle: Lockwood 7.5'  
 6) WELL OPERATOR D. C. Malcolm, Inc. 549 7) DESIGNATED AGENT D. C. Malcolm  
 Address 1006 Commerce Square Address 1006 Commerce Square  
Charleston, WV 25301 29900 Charleston, WV 25301  
 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Craig Duckworth  
 Address Box 107, Davisson Rt. 9) DRILLING CONTRACTOR: Name Unknown  
Gassaway, WV 26624 Address \_\_\_\_\_  
 10) PROPOSED WELL WORK: Drill  / Drill deeper  / Redrill  / Stimulate  /  
 Plug off old formation  / Perforate new formation  /  
 Other physical change in well (specify) \_\_\_\_\_  
 11) GEOLOGICAL TARGET FORMATION, Injun 571  
 12) Estimated depth of completed well, 2100 feet  
 13) Approximate strata depths: Fresh, 85 feet; salt, 110 feet.  
 14) Approximate coal seam depths: none expected Is coal being mined in the area? Yes  / No  /

15) CASING AND TUBING PROGRAM

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						<u>450'</u>	<u>450'</u>		Kinds
Fresh water	<u>9-5/8</u>			<input checked="" type="checkbox"/>		<u>200</u>	<u>200</u>	<u>to surface</u>	
Coal									Sizes
Intermediate	<u>7"</u>		<u>17</u>	<input checked="" type="checkbox"/>		<u>1400</u>		<u>40 sacks</u>	
Production	<u>4-1/2</u>		<u>10.5</u>	<input checked="" type="checkbox"/>		<u>2100</u>	<u>2100</u>	<u>50 sacks</u>	Depths set
Tubing	<u>2-3/8</u>		<u>4.6</u>	<input checked="" type="checkbox"/>		<u>2100</u>	<u>2100</u>		
Liners									Perforations: Top Bottom

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-067-0609 Date July 17 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 July 17, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <u>AB</u>	Plat: <u>ML</u>	Casing: <u>ML</u>	Fee: <u>674</u>
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*[Signature]*

Administrator, Office of Oil and Gas

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

File

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