

Map Id: Z181
 Direction: SW
 Distance: 0.947 mi., 5003 ft.
 Elevation: 751 ft.
 Relative: Lower

Site Name : 16195000920000-80077
 37.565942, -82.454354
 KY
Database(s) : [OIL & GAS WELLS - KY]

Envirosite ID: 41891689
EPA ID: N/R

OIL & GAS WELLS - KY

API Number :	16195000920000
KGS Record Number :	80077
Completion Date :	1987-08-08
Plugged Date :	N/R
Surface Elevation :	737.0
County :	PIKE
Farm Name :	FORD, W T
Operator :	C D & G ENT-GARY C JOHNSON
Well Number :	2A
Total Depth Formation :	341OHIO
Deepest Pay :	341OHIO
Well Classification :	Development well
Result :	Gas producer
Permit :	74830
Measure :	0
Vertical :	3594.0
Plot Symbol :	Wells completed as gas wells (including abandoned producers)
Bore Type :	Conventional vertical well bore (not intentionally deviated)
KGS Link :	Click here for hyperlink provided by the agency.
Latitude :	37.565942
Longitude :	-82.454354
Last Date in Agency List :	2023-03-06

Map Id: 182
 Direction: ESE
 Distance: 0.958 mi., 5057 ft.
 Elevation: 1186 ft.
 Relative: Lower

Site Name : 16195036430000-113797
 37.583211, -82.380479
 KY
Database(s) : [OIL & GAS WELLS - KY]

Envirosite ID: 41934792
EPA ID: N/R

OIL & GAS WELLS - KY

API Number :	16195036430000
KGS Record Number :	113797
Completion Date :	1996-06-17
Plugged Date :	N/R
Surface Elevation :	1205.0
County :	PIKE
Farm Name :	BOGAR, W C ETAL
Operator :	JACKSON-UNITED PET CORP
Well Number :	1
Total Depth Formation :	341OHIO
Deepest Pay :	341HURN
Well Classification :	Development well
Result :	Gas producer
Permit :	87743
Measure :	0
Vertical :	4146.0
Plot Symbol :	Wells completed as gas wells (including abandoned producers)
Bore Type :	Conventional vertical well bore (not intentionally deviated)
KGS Link :	Click here for hyperlink provided by the agency.
Latitude :	37.583211

Map Id: 182
 Direction: ESE
 Distance: 0.958 mi., 5057 ft.
 Elevation: 1186 ft.
 Relative: Lower

Site Name : 16195036430000-113797
 37.583211, -82.380479
 KY
Database(s) : [OIL & GAS WELLS - KY] **(cont.)**

Envirosite ID: 41934792
EPA ID: N/R

OIL & GAS WELLS - KY (cont.)

Longitude : -82.380479
 Last Date in Agency List : 2023-03-06

Map Id: 183
 Direction: SE
 Distance: 0.971 mi., 5127 ft.
 Elevation: 1743 ft.
 Relative: Higher

Site Name : 16195035900000-102451
 37.572452, -82.395141
 KY
Database(s) : [OIL & GAS WELLS - KY]

Envirosite ID: 41850902
EPA ID: N/R

OIL & GAS WELLS - KY

API Number : 16195035900000
 KGS Record Number : 102451
 Completion Date : N/R
 Plugged Date : N/R
 Surface Elevation : 1712.0
 County : PIKE
 Farm Name : C D & G ENTERPRISES
 Operator : C D & G ENT-GARY C JOHNSON
 Well Number : 19
 Total Depth Formation : 000
 Deepest Pay : 000
 Well Classification : Unclassified
 Result : Terminated (permit expired or cancelled)
 Permit : 80869
 Measure : 0
 Vertical : 0.0

Plot Symbol : Locations for which a permit was issued but the permit was cancelled by the operator or allowed to expire. Wells with this designation are included to enable tracking the status of permits.

Bore Type : Conventional vertical well bore (not intentionally deviated)
 KGS Link : [Click here for hyperlink provided by the agency.](#)
 Latitude : 37.572452
 Longitude : -82.395141
 Last Date in Agency List : 2023-03-06

Map Id: BA184
 Direction: ENE
 Distance: 0.975 mi., 5148 ft.
 Elevation: 1207 ft.
 Relative: Lower

Site Name : 16195045250000-123187
 37.614021, -82.390225
 KY
Database(s) : [OIL & GAS WELLS - KY]

Envirosite ID: 41769802
EPA ID: N/R

OIL & GAS WELLS - KY

API Number :	16195045250000
KGS Record Number :	123187
Completion Date :	2001-07-12
Plugged Date :	N/R
Surface Elevation :	1195.0
County :	PIKE
Farm Name :	TAYLOR, EDITH B ETAL
Operator :	BLUE FLAME ENERGY CORP
Well Number :	K-2035A
Total Depth Formation :	341OHIO
Deepest Pay :	341HURN
Well Classification :	Development well
Result :	Gas producer
Permit :	92421
Measure :	0
Vertical :	4006.0
Plot Symbol :	Wells completed as gas wells (including abandoned producers)
Bore Type :	Conventional vertical well bore (not intentionally deviated)
KGS Link :	Click here for hyperlink provided by the agency.
Latitude :	37.614021
Longitude :	-82.390225
Last Date in Agency List :	2023-03-06

Map Id: BA185
 Direction: ENE
 Distance: 0.975 mi., 5148 ft.
 Elevation: 1207 ft.
 Relative: Lower

Site Name : 16195044860000-122253
 37.614008, -82.390208
 KY
Database(s) : [OIL & GAS WELLS - KY]

Envirosite ID: 41779367
EPA ID: N/R

OIL & GAS WELLS - KY

API Number :	16195044860000
KGS Record Number :	122253
Completion Date :	2001-04-09
Plugged Date :	2001-04-12
Surface Elevation :	1202.0
County :	PIKE
Farm Name :	TAYLOT, EDITH B. et al
Operator :	BLUE FLAME ENERGY CORP
Well Number :	K-2035
Total Depth Formation :	320PNLV
Deepest Pay :	000
Well Classification :	Extension (outpost) well
Result :	Dry & abandoned
Permit :	92157
Measure :	0
Vertical :	487.0
Plot Symbol :	Dry and abandoned wells (Abnd = -1 by default)
Bore Type :	Conventional vertical well bore (not intentionally deviated)
KGS Link :	Click here for hyperlink provided by the agency.
Latitude :	37.614008

Map Id: BA185
 Direction: ENE
 Distance: 0.975 mi., 5148 ft.
 Elevation: 1207 ft.
 Relative: Lower

Site Name : 1619504486000-122253
 37.614008, -82.390208
 KY
Database(s) : [OIL & GAS WELLS - KY] **(cont.)**

Envirosite ID: 41779367
EPA ID: N/R

OIL & GAS WELLS - KY (cont.)

Longitude : -82.390208
 Last Date in Agency List : 2023-03-06

Map Id: 186
 Direction: SW
 Distance: 0.984 mi., 5195 ft.
 Elevation: 720 ft.
 Relative: Lower

Site Name : 03210000
 37.567044, -82.457927
 KY
Database(s) : [NWIS]

Envirosite ID: 18715967
EPA ID: N/R

NWIS

Site Identification Number :	03210000
Site Type :	Stream
Station Name :	JOHNS CREEK NEAR META, KY
Agency :	U.S. Geological Survey
District :	N/R
State :	KY
County :	Pike County
Country :	USA
Land Net Location :	N/R
Name of Location Map :	N/R
Scale of Location Map :	N/R
Altitude of Gage/Land Surface :	714.52
Method Altitude Determined :	GNSS2 - Level 2 Quality Survey Grade Global Navigation Satellite System
Altitude Accuracy :	.10
Altitude Datum :	North American Vertical Datum of 1988
Hydrologic Unit :	Lower Levisa
Drainage Basin :	N/R
Topographic Setting :	N/R
Flags for the Type of Data Collected:	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNA
Flags for Instruments at Site :	NNNNYNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
Date of First Construction :	N/R
Date Site Established or Inventoried:	N/R
Drainage Area :	56.3
Contributing Drainage Area :	N/R
Data Reliability :	N/R
Data-Other GW Files :	NNNNNNNN
National Aquifer :	N/R
Local Aquifer :	N/R
Local Aquifer Type :	N/R
Well Depth :	N/R
Hole Depth :	N/R
Source of Depth Data :	N/R
Project Number :	N/R
Real-Time Data Flag :	1
Peak-Streamflow Data Begin Date :	1938
Peak-Streamflow Data End Date :	2017-05-19
Peak-Streamflow Data Count :	77
Water-Quality Data Begin Date :	1961-06-12
Water-Quality Data End Date :	1995-08-22
Water-Quality Data Count :	208

Map Id: 186
 Direction: SW
 Distance: 0.984 mi., 5195 ft.
 Elevation: 720 ft.
 Relative: Lower

Site Name : 03210000
 37.567044, -82.457927
 KY
Database(s) : [NWIS] (*cont.*)

Envirosite ID: 18715967
EPA ID: N/R

NWIS (*cont.*)

Field Water-Level Measurements Begin	N/R
Date:	
Field Water-level Measurements End	
Date:	N/R
Field Water-Level Measurements Count:	0
Site-Visit Data Begin Date :	1941-10-02
Site-Visit Data End Date :	2023-03-08
Site-Visit Data Count :	788
Latitude :	37.567044
Longitude :	-82.457927
Last Date in Agency List :	2023-06-12

Map Id: 187
 Direction: E
 Distance: 0.985 mi., 5202 ft.
 Elevation: 1854 ft.
 Relative: Higher

Site Name : TOWER
 37.588019, -82.379106
 PIKEVILLE, KY
Database(s) : [DIGITAL OBSTACLE]

Envirosite ID: 2559262
EPA ID: N/R

DIGITAL OBSTACLE

Date of Action :	2016-11-09
Action :	Change
FAA Study Number :	2013ASO097990E
OBS Number :	21-000908
Obstacle Type :	TOWER
City Name :	PIKEVILLE
State Identifier :	KY
Country Identifier :	USA
Type of Lighting :	Medium Intensity White Strobe
Verification Status :	Verified
Quantity :	1
Mark Indicator :	None
Above Ground Level Height (Feet) :	00300
Above Mean Sea Level Height (Feet) :	02162
Horizontal Accuracy :	+ -20'
Vertical Accuracy :	+ -3'
Latitude :	37 35 16.87N
Longitude :	082 22 44.78W

Map Id: 188
 Direction: NNE
 Distance: 0.991 mi., 5233 ft.
 Elevation: 1075 ft.
 Relative: Lower

Site Name : 00019169
 37.623433, -82.409036
 KY
Database(s) : [WELLS - KY]

Envirosite ID: 18535877
EPA ID: N/R

WELLS - KY

AKGWA Number : 00019169
 AI Number : N/R
 Public ID : N/R
 Construction Date : 1991-05-08
 Status : N/R
 Driller Certification Number : 0158
 Driller Name : Lowell Ray
 Owner Business Name : N/R
 Owner Name : Wayne Ray
 Primary Use : N/R
 Quadrangle : Meta
 Surface Elevation (Ft) : 1120
 Depth to Bedrock (Ft) : 33
 Total Depth (Ft) : 140
 Static Water Level (Ft) : 80
 Regulatory Program : N/R
 County : Pike
 Latitude : 37.623433
 Longitude : -82.409036
 Scanned Document : [Click here for hyperlink provided by the agency.](#)
 Last Date in Agency List : 2017-12-01

Map Id: 189
 Direction: SE
 Distance: 0.994 mi., 5247 ft.
 Elevation: 1567 ft.
 Relative: Higher

Site Name : 16195042470000-120928
 37.572727, -82.407997
 KY
Database(s) : [OIL & GAS WELLS - KY]

Envirosite ID: 41870905
EPA ID: N/R

OIL & GAS WELLS - KY

API Number : 16195042470000
 KGS Record Number : 120928
 Completion Date : 2000-04-26
 Plugged Date : N/R
 Surface Elevation : 1557.0
 County : PIKE
 Farm Name : TAYLOR, AUBREY
 Operator : KINZER, J W
 Well Number : 995
 Total Depth Formation : 341OHIO
 Deepest Pay : 341OHIO
 Well Classification : Development well
 Result : Gas producer
 Permit : 90906
 Measure : 0
 Vertical : 4462.0
 Plot Symbol : Wells completed as gas wells (including abandoned producers)
 Bore Type : Conventional vertical well bore (not intentionally deviated)
 KGS Link : [Click here for hyperlink provided by the agency.](#)
 Latitude : 37.572727
 Longitude : -82.407997

Map Id: 189
Direction: SE
Distance: 0.994 mi., 5247 ft.
Elevation: 1567 ft.
Relative: Higher

Site Name : 16195042470000-120928
37.572727, -82.407997
KY
Database(s) : [OIL & GAS WELLS - KY] **(cont.)**

Envirosite ID: 41870905
EPA ID: N/R

OIL & GAS WELLS - KY **(cont.)**

Last Date in Agency List : 2023-03-06

Map Id: 190
Direction: SSE
Distance: 0.994 mi., 5248 ft.
Elevation: 1118 ft.
Relative: Lower

Site Name : 16195044630000-40019
37.56917, -82.41343
KY
Database(s) : [OIL & GAS WELLS - KY]

Envirosite ID: 41868583
EPA ID: N/R

OIL & GAS WELLS - KY

API Number : 16195044630000
KGS Record Number : 40019
Completion Date : 1949-01-03
Plugged Date : 1949-01-22
Surface Elevation : 1121.0
County : PIKE
Farm Name : JOHNSON, BETTY ANN
Operator : UNITED FUEL GAS CO
Well Number : 5840
Total Depth Formation : 341OHIO
Deepest Pay : 341OHIO
Well Classification : Development well
Result : Gas producer
Permit : 4396EF
Measure : 0
Vertical : 3830.0
Plot Symbol : Wells completed as gas wells (including abandoned producers)
Bore Type : Conventional vertical well bore (not intentionally deviated)
KGS Link : [Click here for hyperlink provided by the agency.](#)
Latitude : 37.569170
Longitude : -82.413430
Last Date in Agency List : 2023-03-06

Map Id: 191
Direction: N
Distance: 0.999 mi., 5277 ft.
Elevation: 1605 ft.
Relative: Higher

Site Name : 16195040700000-120145
37.618936, -82.425487
KY
Database(s) : [OIL & GAS WELLS - KY]

Envirosite ID: 41884250
EPA ID: N/R

OIL & GAS WELLS - KY

API Number : 16195040700000
KGS Record Number : 120145
Completion Date : 1999-05-06
Plugged Date : N/R

Map Id: 191
Direction: N
Distance: 0.999 mi., 5277 ft.
Elevation: 1605 ft.
Relative: Higher

Site Name : 16195040700000-120145 37.618936, -82.425487 KY
Database(s) : [OIL & GAS WELLS - KY] (cont.)

Envirosite ID: 41884250
EPA ID: N/R

OIL & GAS WELLS - KY **(cont.)**

Surface Elevation :	1504.0
County :	PIKE
Farm Name :	EQUITABLE PRODUCTION CO
Operator :	EQUITABLE PRODUCTION COMPANY
Well Number :	KF1545
Total Depth Formation :	3410LNG
Deepest Pay :	341HURNL
Well Classification :	Development well
Result :	Gas producer
Permit :	90177
Measure :	0
Vertical :	4275.0
Plot Symbol :	Wells completed as gas wells (including abandoned producers)
Bore Type :	Conventional vertical well bore (not intentionally deviated)
KGS Link :	Click here for hyperlink provided by the agency.
Latitude :	37.618936
Longitude :	-82.425487
Last Date in Agency List :	2023-03-06

RADON DATA:

STATE SOURCE: No Available Data

FEDERAL AREA RADON INFORMATION FOR: 41571

NUMBER OF SAMPLE SITES: No Available Data

FEDERAL EPA RADON ZONE FOR PIKE COUNTY: Zone = 2

Note: Zone 1 indoor average level > 4 pCi/L

: Zone 2 indoor average level > = 2 pCi/L and <= 4 pCi/L

: Zone 3 indoor average < 2 pCi/L

HIST PWS ENF

Historical Public Water Supply locations with Enforcement Violations

Environmental Protection Agency

(800) 426-4791

List of Safe Drinking Water Information Systems (SDWIS) with enforcement violations that are no longer in current agency list.

NWIS

National Water Information Systems

United States Geological Society

(703) 648-5953

Information on all water resources for the United States. This database contains all current and historical data for the nation.

PWS

Public Water Supply

Environmental Protection Agency

(800) 426-4791

Safe drinking water information Systems

PWS ENF

Public Water Supply locations with Enforcement Violations

Environmental Protection Agency

(800) 426-4791

Safe drinking water information Systems with enforcement violations

WELLS - KY

Water well and spring data

Kentucky Geological Survey

859.323.0524

Kentucky Groundwater Data Repository

FLOOD Q3

Flood data

Environmental Protection Agency

(202) 566-1667

Q3 Flood Data

HYDROLOGIC UNIT

Hydrologic Unit Maps

USGS

The United States Geological Survey created a hierarchical system of hydrologic units originally called regions, sub-regions, accounting units, and cataloging units. Each unit was assigned a unique Hydrologic Unit Code (HUC). As first implemented the system had 21 regions, 221 subregions, 378 accounting units, and 2,264 cataloging units. Over time the system was changed and expanded. As of 2010 there are six levels in the hierarchy, represented by hydrologic unit codes from 2 to 12 digits long, called regions, subregions, basins, subbasins, watersheds, and subwatersheds. The table below describes the system's hydrologic unit levels and their characteristics, along with example names and codes.

WETLANDS NWI

National Wetland Inventory

U.S. Fish and Wildlife Service

(703) 358-2171

Wetland Inventory for the United States

SSURGO

Detailed Soil Data Map

Natural Resources Conservation Service: U.S. Department of Agriculture

(202) 690-4985

Detailed Soil Data Map

STATSGO & MUI

General Soil Data Map

Natural Resources Conservation Service: U.S. Department of Agriculture

(202) 690-4985

General Soil Data Map

USGS GEOLOGIC AGE

USGS Digital Data Series DDS

Natural Resources Conservation Service: U.S. Department of Agriculture

(202) 690-4985

USGS Digital Data Series DDS: Geologic Age and Rock Stratigraphic Unit

OIL & GAS WELLS - KY

Oil & Gas Wells

Kentucky Geological Survey

Oil and gas well locations

RADON

National Radon Database

U.S. Environmental Protection Agency

215-814-2469

A study of the EPA/State Residential Radon Survey and the National Residential Radon Survey.

RADON EPA

RADON EPA

U.S. Environmental Protection Agency

215-814-2469

EPA list of Radon zones

AIRPORT FACILITIES

Airport landing facilities

Federal Aviation Administration

(866) 835-5322

Airport landing facilities

BASINS

Better Assessment Science Integrating point & Non-point Sources

U.S. Environmental Protection Agency

855-246-3642

Integrated geographical information system national watershed data and environmental assessment known as Better Assessment Science Integrating point & Non-point Sources

DIGITAL OBSTACLE

Obstacles of interest to aviation users

Federal Aviation Administration

855-379-6518

The Digital Obstacle File describes all known obstacles of interest to aviation users in the U.S. with limited coverage of the Pacific the Caribbean Canada and Mexico. The obstacles are assigned unique numerical identifiers; accuracy codes and listed in order of ascending latitude within each state or area by FAA Region.

EPICENTERS

National Geographical Data Center

National Geographical Data Center

303-497-6826

List of recent and historic earthquakes and information.

FLOOD DFIRM

National Flood Hazard Layer Database

Federal Emergency Management Agency

The National Flood Hazard Layer Database (NFHL) is a computer database that contains the flood hazard map information from FEMA's Flood Map Modernization program. These map data are from Digital Flood Insurance Rate Map (DFIRM) databases and Letters of Map Revision.

Appendix E

Regulatory Agency Documentation

Thank you for submitting your information via the Kentucky Energy and Environment Cabinet eForms website. Please save a copy of this submittal for your records. We recommend saving a copy as a .mht, .html, or .htm file. Your Submittal ID and Transaction ID will be included in an email after EEC Staff have reviewed your submittal.

The Submittal ID for this transaction is 219855 and was submitted on January 27, 2021 10:37 AM Eastern Time. If you need to contact DEP regarding your submission, please reference your Submittal ID.

The eForm Submittal ID allows you to use the data from this submittal as a template and/or download a copy of your submittal.

UNIFORM KENTUCKY WATER/MONITORING WELL REPORTING RECORD

Use this form to report installation, modification or decommissioning of any temporary or permanent monitoring or water wells

Form must be completed and submitted to the Division of Water within 60 days of completion of work

(*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field

Purpose of the application(*)			
Install only			
Kentucky Well ID (AKGWA) Number(*)	Owner Well ID#	Well use(*)	
8007-7207	G0820	Monitoring well - ambient	
	Reference Point		
Monitoring Well Info			
Wellhead			
Manhole cover and gasket ?(*)	if so, diameter (in):(✓)	Dedicated pump(*)	
No	diameter (in)	No pump	
Flush mount(*)	Cap(*)		
No	Water-tight and lockable		
Owner Name and Address Information			
Enter business name if owner is an organization. Enter first name/middle initial/last name if owner is an individual			
Owner Business name(✓)	Owner first name(✓)	Owner middle initial	Owner last name(✓)
Pike Co Landfill	Owner first name	Middle init	Owner last name
Owner address(*)	Owner city(*)	Owner state(*)	Owner zipcode(*)
625 Ford Mountain	Meta	Kentucky	41501
Owner telephone:(*)			
606-213-5806			

Site Name, Address and Agency Information

Please check the checkbox if site address is same as the owner address

Agency Interest (AI) Number: 3688	Program type ▼	Permit or ID Number 	
Site Name(*) Pike Co Landfill		Site telephone: ###-###-####	
Site Address(*) 625 Ford Mountain	Site city(*) Meta	Site state(*) Kentucky ▼	Site zipcode(*) 41501

Supporting Documentation

Site Map/Sketch Map(✓)	Upload file
Well location	Upload file
Well Diagram (monitoring well)	Upload file
Bacteria analysis (if applicable)	Upload file
Approved variance (if applicable)	Upload file
Drilling log (optional)	Upload file
Other laboratory analysis report (optional)	Upload file
Aquifer test results (optional)	Upload file
Casing/Screen Supplemental Info (if applicable)	Upload file
Other documentation (optional)	Upload file

Well Specifications

Active(*) Yes ▼	Unsuitable for Intended use(*) No ▼
Discharge permit required?(*) No ▼	Withdrawal permit required?(*) No ▼
Artesian/flowing(*) No ▼	If so, height (in):(✓)
Nested wells(*) No ▼	If so, number:(✓)

Well Location

Well latitude(decimal degrees) (*Driller Viewer (http://watermaps.ky.gov/drillersmap/)) 37.576006	Well longitude(decimal degrees)(*) -82.447940	Method(*) GIS ▼
USGS 7.5' quadrangle(*) META ▼	County(*) Pike ▼	Physiographic region(*) E. Coal Field ▼
Surface elevation(ft)(*) 1,157.5	Surface elevation method(*) GIS ▼	Well in flood zone?(*) No ▼

Construction

CONSTRUCTION			
Install start date(*) <input type="text" value="10/20/2020"/>		Install end date(*) <input type="text" value="10/21/2020"/>	
Drilling method(*) <input type="text" value="Combo (specify)"/>		Specify drilling method combinations(✓) <input type="text" value="Core, Auger HS"/>	
Drilling method has no annular space(*) <input type="text" value="No"/>	Multiple screens ?(*) <input type="text" value="No"/>	Well development method(*) <input type="text" value="Combinations of"/>	Specify development method combinations(✓) <input type="text" value="Pumping and Surging"/>
Surface Completion :			
Protective surface casing(*) <input type="text" value="Yes"/>	Protective surface casing type(✓) <input type="text" value="PVC"/>	Protective surface casing height above surface(in)(✓) <input type="text" value="2.0"/>	Water-tight locking cap(*) <input type="text" value="Yes"/>
Concrete pad(*) if Yes, enter length(in) X Width(in) X height(in) in textbox below <input type="text" value="Yes"/> <input type="text" value="24x24x.6"/>	Bumper guards(*) if so, enter number below: <input type="text" value="Yes"/> <input type="text" value="4"/>	Weep holes(*) if yes, enter number below <input type="text" value="Yes"/> <input type="text" value="2"/>	
Outer casing(*) <input type="text" value="Yes"/>	Outer casing type(✓) <input type="text" value="PVC"/>	Outer casing height above surface(in)(✓) <input type="text" value="2"/>	Outer casing 2 foot above flood level ?(✓) <input type="text" value="Yes"/>
Inner casing(*) <input type="text" value="Yes"/>	Inner casing type(✓) <input type="text" value="PVC"/>	Inner casing height above surface(in)(✓) <input type="text" value="1.8"/>	Inner casing 2 foot above flood level ?(✓) <input type="text" value="Yes"/>
Please report depths in feet below ground surface,			
Total depth (ft bgs):(*) <input type="text" value="64"/>		Depth to bedrock (ft bgs):(✓) <input type="text" value="7.5"/>	
Static water level (ft bgs): <input type="text" value="59.3"/>		SWL method(✓) <input type="text" value="Estimated"/>	
Casing/open borehole:			
(*)Note: When entering a row of data, From Depth, To Depth, Borehole diameter and Casing Type are required fields			
<u>From Depth (ft)</u> <input type="text" value="0.00"/>	<u>To Depth (ft)</u> <input type="text" value="54.00"/>	<u>Borehole diameter (in)</u> <input type="text" value="8.00"/>	<u>Casing OD (in)</u> <input type="text" value="2.00"/>
		<u>Casing ID (in)</u> <input type="text" value="2.00"/>	<u>Casing Type</u> <input type="text" value="PVC"/>
Screen:			
<u>From Depth (ft)</u> <input type="text" value="54.00"/>	<u>To Depth (ft)</u> <input type="text" value="64.00"/>	<u>Borehole diameter (in)</u> <input type="text" value="8.00"/>	<u>Screen OD (in)</u> <input type="text" value="2.00"/>
		<u>Screen ID (in)</u> <input type="text" value="2.00"/>	<u>Screen Type</u> <input type="text" value="PVC"/>
			<u>Screen Slot Size (in)</u> <input type="text" value="0.10"/>
Annulus fill and seal			

Section	From Depth (ft)	To Depth (ft)	Material
Filterpack	51.20	64.00	Bentonite pellets
Filterpack	48.00	51.20	Sand
Grout	2.00	48.00	Mixture - bentonite & cement
Seal	0.00	2.00	Concrete

Lithologic log

From Depth (ft)	To Depth (ft)	Description
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Comments

Affirmation

I certify under penalty of law that this document/electronic submittal and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. By submitting data, this transmission constitutes my signature and I am responsible for any and all content submitted either by me or by the people I represent.

Date affirmed(*)	1/27/2021
Driller first name(*)	Lonnie
Driller middle initial	M.I
Driller last name(*)	Wanstrath
Driller suffix	Driller suffix
Certification number(*)	0193-0611-00
Certification company(*)	Geotechnology,INC.

Click to Save Values for Future Retrieval

Click to Submit to EEC

Thank you for submitting your information via the Kentucky Energy and Environment Cabinet eForms website. Please save a copy of this submittal for your records. We recommend saving a copy as a .mht, .html, or .htm file. Your Submittal ID and Transaction ID will be included in an email after EEC Staff have reviewed your submittal.

The Submittal ID for this transaction is 219888 and was submitted on . If you need to contact DEP regarding your submission, please reference your Submittal ID.

The eForm Submittal ID allows you to use the data from this submittal as a template and/or download a copy of your submittal.

UNIFORM KENTUCKY WATER/MONITORING WELL REPORTING RECORD

Use this form to report installation, modification or decommissioning of any temporary or permanent monitoring or water wells

Form must be completed and submitted to the Division of Water within 60 days of completion of work

(*) indicates a required field; (✓) indicates a field may be required based on user input or is an optionally required field

Purpose of the application(*) <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between; align-items: center;"> Install only ▼ </div>		
Kentucky Well ID (AKGWA) Number(*) <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between; align-items: center;"> 8007-7207 </div>	Owner Well ID# <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between; align-items: center;"> G0820 </div> Reference Point <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between; align-items: center;"> ▼ </div>	Well use(*) <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between; align-items: center;"> Monitoring well - ambient ▼ </div>
General Comments: <div style="border: 1px solid black; height: 20px; margin-top: 5px;"></div>		
Applicant Comment: <div style="border: 1px solid black; height: 30px; margin-top: 5px;"></div>		
EEC Reviewer Comment: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>		
Monitoring Well Info		
Monitoring Well Review Comments: <div style="border: 1px solid black; height: 20px; margin-top: 5px;"></div>		
Applicant Comment: <div style="border: 1px solid black; height: 30px; margin-top: 5px;"></div>		
EEC Reviewer Comment: <div style="border: 1px solid black; height: 40px; margin-top: 5px;"></div>		
Wellhead		
Manhole cover and gasket ?(*) <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between; align-items: center;"> No ▼ </div>	if so, diameter (in):(✓) <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between; align-items: center;"> diameter (in) </div>	Dedicated pump(*) <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between; align-items: center;"> No pump ▼ </div>
Flush mount(*)	Cap(*)	

No

Water-tight and lockable

Owner Name and Address Information

Enter business name if owner is an organization. Enter first name/middle initial/last name if owner is an individual

Owner Information Review Comments:**Applicant Comment:****EEC Reviewer Comment:****Owner Business name(✓)**

Pike Co Landfill

Owner first name(✓)

Owner first name

Owner middle initial

Middle init

Owner last name(✓)

Owner last name

Owner address(*)

625 Ford Mountain

Owner city(*)

Meta

Owner state(*)

Kentucky

Owner zipcode(*)

41501

Owner telephone:(*)

606-213-5806

Site Name, Address and Agency Information

Please check the checkbox if site address is same as the owner address

Agency Interest (AI) Number:

3688

Program type**Permit or ID Number****Site Name(*)**

Pike Co Landfill

Site telephone:

###-###-####

Site Address(*)

625 Ford Mountain

Site city(*)

Meta

Site state(*)

Kentucky

Site zipcode(*)

41501

Supporting Documentation**Site Map/Sketch Map(✓)**

Upload file

Well location

Upload file

Well Diagram (monitoring well)

Upload file

Bacteria analysis (if applicable)

Upload file

Approved variance (if applicable)

Upload file

Drilling log (optional)

Upload file

Other laboratory analysis report (optional)

Upload file

Aquifer test results (optional)

Upload file

Casing/Screen Supplemental Info (if applicable)

Upload file

Other documentation (optional)	<input type="button" value="Upload file"/>
---------------------------------------	--

Well Use and Specification Review Comments:
Applicant Comment: <div style="border: 1px solid black; height: 30px; width: 100%;"></div>
EEC Reviewer Comment: <div style="border: 1px solid black; height: 40px; width: 100%;"></div>

Well Specifications			
Active(*) <input type="text" value="Yes"/>	Unsuitable for Intended use(*) <input type="text" value="No"/>	Discharge permit required?(*) <input type="text" value="No"/>	Withdrawal permit required?(*) <input type="text" value="No"/>
Artesian/flowing(*) <input type="text" value="No"/>	If so, height (in):(✓) <input type="text"/>	Nested wells(*) <input type="text" value="No"/>	If so, number:(✓) <input type="text"/>

Well Location

Well Location Review Comments:
Applicant Comment: <div style="border: 1px solid black; height: 30px; width: 100%;"></div>
EEC Reviewer Comment: <div style="border: 1px solid black; height: 40px; width: 100%;"></div>

Well latitude(decimal degrees) (*)Driller Viewer <small>(http://watermaps.ky.gov/well)</small> <input type="text" value="37.576006"/>	Well longitude(decimal degrees)(*) <input type="text" value="-82.447940"/>	Method(*) <input type="text" value="GIS"/>
USGS 7.5' quadrangle(*) <input type="text" value="META"/>	County(*) <input type="text" value="Pike"/>	Physiographic region(*) <input type="text" value="E. Coal Field"/>
Surface elevation(ft)(*) <input type="text" value="1,157.5"/>	Surface elevation method(*) <input type="text" value="GIS"/>	Well in flood zone?(*) <input type="text" value="No"/>

Construction

Well Construction Review Comments:
Applicant Comment: <div style="border: 1px solid black; height: 30px; width: 100%;"></div>
EEC Reviewer Comment: <div style="border: 1px solid black; height: 40px; width: 100%;"></div>

Install start date(*) 10/20/2020		Install end date(*) 10/21/2020	
Drilling method(*) Combo (specify) v		Specify drilling method combinations(✓) Core, Auger HS	
Drilling method has no annular space(*) No v	Multiple screens ?(*) No v	Well development method(*) Combinations of v	Specify development method combinations(✓) Pumping and Surging
Surface Completion :			
Protective surface casing(*) Yes v	Protective surface casing type(✓) PVC v	Protective surface casing height above surface(in)(✓) 2.0	Water-tight locking cap(*) Yes v
Concrete pad(*) if Yes, enter length(in) X Width(in) X height(in) in textbox below Yes v 24x24x.6		Bumper guards(*) if so, enter number below: Yes v 4	
		Weep holes(*) if yes, enter number below Yes v 2	
Outer casing(*) Yes v	Outer casing type(✓) PVC v	Outer casing height above surface(in)(✓) 2	Outer casing 2 foot above flood level ?(✓) Yes v
Inner casing(*) Yes v	Inner casing type(✓) PVC v	Inner casing height above surface(in)(✓) 1.8	Inner casing 2 foot above flood level ?(✓) Yes v
Please report depths in feet below ground surface,			
Total depth (ft bgs):(*) 64		Depth to bedrock (ft bgs):(✓) 7.5	
Static water level (ft bgs): 59.3		SWL method(✓) Estimated v	
Casing/open borehole:			
(*)Note: When entering a row of data, From Depth, To Depth, Borehole diameter and Casing Type are required fields			
From Depth (ft) 0.00	To Depth (ft) 54.00	Borehole diameter (in) 8.00	Casing OD (in) 2.00
			Casing ID (in) 2.00
			Casing Type PVC
Screen:			
From Depth (ft) 54.00	To Depth (ft) 64.00	Borehole diameter (in) 8.00	Screen OD (in) 2.00
			Screen ID (in) 2.00
			Screen Type PVC
			Screen Slot Size (in) 0.10
Annulus fill and seal			
Section	From Depth (ft)	To Depth (ft)	Material

ITEM	FROM DEPTH (ft)	TO DEPTH (ft)	DESCRIPTION
Filterpack	51.20	64.00	Bentonite pellets
Filterpack	48.00	51.20	Sand
Grout	2.00	48.00	Mixture - bentonite & cement
Seal	0.00	2.00	Concrete

Lithologic log

From Depth (ft)	To Depth (ft)	Description
-----------------	---------------	-------------

Comments

Affirmation Review Comments:

Applicant Comment:

EEC Reviewer Comment:

Affirmation

I certify under penalty of law that this document/electronic submittal and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. By submitting data, this transmission constitutes my signature and I am responsible for any and all content submitted either by me or by the people I represent.

Date affirmed(*)	1/27/2021
Driller first name(*)	Lonnie
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Certification number(*)	0193-0611-00
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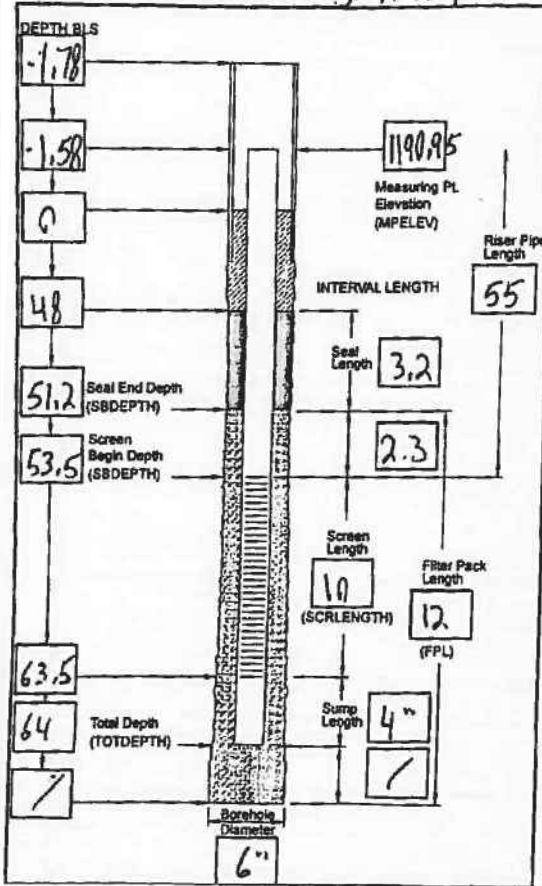
Click to Save Values for Future Retrieval

Click for Technical Review Complete

Click to Submit Deficiency

Well I.D.: BH-2020/6-00-20
Drilling Company: Crack Technology Inc
Driller: L. Winstalk
Geologist/Engineer: M. W. H. H.
Geologic Completion Zone: Wheatburg P/Fie clay

Site: Prince George's Landfill
Installation Method: AK Battery
Casing Installation Date: 10/24/20
Well Type: Pressure
Well Completion Method: Single No. 10' screen



Notes:
1. Drawing not to scale
2. Units are in feet

Comments: _____

Well Completion
Guard Posts: Yes No Date: 10/24/20
Surface Pad Size: 2 ft x 2 ft x 2 inches thick

Protective Casing or Cover - None
Diameter: 4 inches
Type: Steel Aluminum
Depth BGS: _____ Weep Hole: Yes No

Grout - Date: 10-21-20
Composition/Proportions:
 95/5 Type I/Type II Cement - Bentonite Mix Other: _____
Placement Method: Pressure Tremie Gravity Other: _____

Seal - Date: 10-20-20
Type: 3/8" Bentonite Chips Moric #00 Sand
 Coated Bentonite Pellets-Time: _____ Other: _____
Source/Brand: AK Plug #0 TR30
Set-up/Hydration Time: 28
Placement Method: Pressure Tremie Gravity Other: _____
Vol. Fluid Added: 6 gallons liters

Filter Pack
Type: Moric #2 Sand or equiv. Moric #1 Sand or equiv.
 Gravel Other: #4 Wash sand
Source/Brand: AK
Amount Used: 4 bags pounds
Placement Method: Pressure Tremie Gravity
 Other: _____

Well Riser Pipe
Material: Schedule 40 PVC - Flush Threaded Joints
 Other: _____
Casing Inside Diameters: Nominal 2-inch - 2.047-inch I.D.
 Nominal 4-inch - 3.998-inch I.D. Other: _____

Screen
Material: Schedule 40 PVC - Machine Slotted
 Other: _____
Casing Inside Diameters: Nominal 2-inch - 2.047-inch I.D.
 Nominal 4-inch - 3.998-inch I.D. Other: _____
Screen Slot Size: 0.010-inch 0.020-inch Other: _____
Percent Open Area: 3.25% - 2-inch, 0.010 slot Other: _____
Sump or Bottom Cap: Yes No Brand: Penason

Backfill Plug Yes No
Material: Grout Bentonite
Placement Method: Pressure Tremie Gravity Other: _____
Set-up/Hydration Time: _____

Total Water Volume During Construction
Introduced: 84 gallons Recovered: 71 gallons

LOCATION OF BORING										PROJECT: <u>MW 127</u> CLIENT: <u>Pliscine Co</u> LOCATION: <u>Near Key</u>	
										DRILLING METHOD: <u>ISA</u> BORING: <u>BH-20-20</u>	
										SAMPLING METHOD: <u>split spoon</u>	
										BHEET OF DRILLING	
										START TIME	FINISH TIME
										DATE	DATE
										4/23/02	4/23/02
DATUM: _____ ELEVATION: _____										SURFACE CONDITIONS:	
SAMPLER TYPE	INCHES WITHIN RECOVERED	DEPTH OF CASING	SAMPLE DEPTH	BLOW COUNT	N BLOW/FT	NUMBER OF RINGS	DEPTH FEET	SOIL SAMPLE	MATERIAL DESCRIPTION	FIELD NOTES	
				28-61-40			0		Brown sandy clay; loose → hard stiff silty	1905	
							1	CL	Light grey + grey, slightly med weathered ss; fine-med grain; finely bedded		
							2				
							3				
							4				
							5		"bedding fractures (1907?)	med	
							6	soil	Brown and slightly weathered med grain ss	→ 1907/1908	
							7		Major refusal @ 7.6'		
							8				
							9				
							0				
							1				
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							0				

DRILLING CONTRACTOR: Geotechnical
 DRILLER: William
 DATE: 9-23-20
 LOGGED BY: M Williams
 CHECKED BY: _____

LOCATION OF BORING

PROJECT: MW1727	CLIENT: Dicksville County	LOCATION: Mtn. Ky
DRILLING METHOD: Wireline		BORING: BH 20-20
SAMPLING METHOD: Wireline QA		SHEET OF DRILLING
WATER LEVEL		START TIME
TIME		1745
DATE		DATE
		9/27
CASING DEPTH		9/27

DATUM: ELEVATION:

RUN NO.	FEET DOWN	TIME	DRILL RATE MIN/FT	R.O.P. %	WEATHERING	STRENGTH	DEPTH FEET	FRACTURE GRABBING
1	~1	045	120	100	none-slight	none-slight	0-8	
2	5/5	050		100	none-slight	none-slight	8-10	
3		119 1157	114 1min	100	slight	slight	10-14	
		1420		795			14	

MATERIAL DESCRIPTION	FIELD NOTES
SS is clean w/ little material possible small liths (qtz-kiln-frag?)	
vel-bln-gray micaceous fine-med-gr SS; med-gr predom; hard-v hard	fragments
Gray micaceous fine-med-gr SS; low grain predom; med hard; qtz kilns; silt beds; bent along vein	1-2 mm coal
fine-vel micaceous fine-med-gr SS; fine-grained; med hard; qtz kilns; possible pite stone	Many thin blades
interbedded silt (decomposed to silt: clay); some silt clasts (plastic); med-gr predom	Core is mostly interbedded on silt/clay planes
coal + silt become more prevalent; root-frames thicker;	
silt silt horizons stop; begins shift to gray/greenish gray;	
bedding becomes laminated; coal partings and clay partings ~4"	

DRILLING CONTRACTOR: Geotechnical
DRILLER: [unclear]

DATE 9-27-20

LOGGED BY: M. Willis
CHECKED BY:

1425

100

9/27

LOCATION OF BORING		PROJECT: MWV1727	CLIENT: Pikeville Co	LOCATION: Mauck KY
		DRILLING METHOD: W/airline		BORING: SH-20-20
		SAMPLING METHOD: W/airline; 5'10" runs		SHEET OF DRILLING
DATUM:		WATER LEVEL:	START TIME: 1035	FINISH TIME: 1745
ELEVATION:		TIME:	DATE: 9/27	DATE: 9/27
		CASING DEPTH:	SURFACE CONDITIONS:	

RUN NO.	FEET DOWN	FEET RECORDED	TIME	DRILL DATE MIN/FT	R O D #	FRACURE PRES.	WEATHERING	STRENGTH	DEPTH FEET	FRACURE DRAWING	MATERIAL DESCRIPTION	FIELD NOTES
3				1436	100	none	none/	slight	0		Grey SH lenses/lenticles w/ L brown pods of mudstone	SH typically med to intensly weathered
				1436					1			
				1436					2		coal streaks become more common w/ interbeds of SH; SS still med-gr	2 1/2" - 1/2"
				1436					2.3		changes outcrop to grey SH med (laminated) with coal lamination; SH deep out for med w/ occasional SH beds	
				1436					3			
				1436					4			
				1436					5			
				1436					6		D grey SH w/ coal beds	coal bearing SH less weathered
				1436					7		Grey SH becomes more weathered w/ depth (soft) to E site	
				1436					8			
				1436					9			
				1436					10			
				1436					11			
				1436					12			
				1436					13			
				1436					14			
				1436					15			
				1436					16			
				1436					17			
				1436					18			
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				1436					30			
				1436					31			
				1436					32			
				1436					33			
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				1436					35			
				1436					36			
				1436					37			
				1436					38			
				1436					39			
				1436					40			

DRILLING OPERATOR: Geotechnical
 DRILLER: W. M. ...
 LOGGED BY: M. W. ...
 CHECKED BY: ...
 DATE: 9-27-20

43.1 -> laminated & later bedded D grey grey sh & grey SS; hard

LOCATION OF BORING

PROJECT: MW1727	CLIENT: Pikeville Co	LOCATION: Mett, KY
DRILLING METHOD: Wireline		BORING: BH-20-20
SAMPLING METHOD: Wireline; 5'-10'		SHEET OF DRILLING
WATER LEVEL		START TIME: 1035
TIME		FINISH TIME: 1745
DATE		DATE: 9/27
CASING DEPTH		DATE: 9/27

DRILLING CONTRACTOR: Geotechnology
 DRILLER: [Signature]

DATE: 9/27-20

LOGGED BY: M. Wilkes
CHECKED BY:

DATUM:		ELEVATION:									
RUN NO.	FEET DRIVER FEET RECOVERED	TIME	DRILL RATE MIN/FT	R O D #	FRACTURE FREQ.	WEATHERING	STRENGTH	DEPTH FEET	FRACTURE DRAWING	MATERIAL DESCRIPTION	FIELD NOTES
6								0			
7						none		1-3			
					~100	none		4		Grey fin-gr sandstone; turbid seq micaceous; hard; fresh-shaly weathered; occasional sh laminar	
								5			
								6			
								7			
								8			
								9			
			~25 ft/min		100	/	med	10		Blackish-grey shaly interbedded & lamellar w/ black, reddish ss & grey sh: ss is clay grain; hard; shale predominantly; micaceous	Starclack
								11			
								12			
								13			
								14			
								15			
								16			
								17			
								18			
								19			
9			~2.5 ft/min		100	hard	med	20		coal + fissile D grey shale coal; siliceous; D grey laminated bank	Peacock coal
								21			
								22			
								23			
								24			
								25			
								26			
								27			
								28			
								29			
								30			

63 - "

UNIFORM KENTUCKY WELL CONSTRUCTION RECORD

Widman
1-5-21

Use this form only to report installation of monitoring or water wells.
Original copy must be submitted to Division of Water within 60 days of completion.
See instructions on reverse of form.

Record must be typed or neatly printed or it will be returned to the driller as unacceptable.
One copy to Division of Water, one copy to owner, one copy to driller's files.

8007-7207

4. Owner name: Pike County Landfill
 5. Owner address: 625 Ford Mountain Rd
 6. City: Pikeville 7. State: Ky 8. Zip: 41501
 If site name and address differ from owner name and address:
 9. Site name:
 10. Site address:
 11. City: 12. State: 13. Zip:

14. Agency Interest (AI) Number: 3688
 15. Program type and Permit or ID Number: CERCLA Solid Waste UST KPDES RCRA Mining PWS Water Withdrawal

16. Owner phone: 606-213-5806 17. Site phone: 606-213-5806

18. USGS 7.5' quadrangle: Meta 37.576006, -82.447940

19. County: Pike 20. Well in flood zone: Yes No

21. Physiographic region: Bluegrass Ohio River Alluvium E. Coal Field W. Coal Field Miss. Plateau Jackson Purchase
 22. Surface elevation (ft): 1157.5 23. Surface elevation method: GIS GPS Paper map Survey

24. Latitude: 37.501422°N 25. Longitude: 82.779082°W 26. Latitude/Longitude method: GIS GPS Paper map Survey

35. Well use:
 Agricultural
 Commercial
 Domestic
 Industrial
 Mining
 Monitoring
 Public
 CODE REQUIRED for well uses above; see back of form for codes.
 Geothermal
 Heat Pump
 HVAC
 Injection
 Remediation
 Unused

36. Drilling method:
 Air hammer
 Auger - bucket
 Auger - hand
 Auger - HS
 Auger - SS
 Cable tool
 Core
 Direct push (DPT)
 Dual circulation
 Excavation
 Jet wash
 Rotary - air
 Rotary - mud
 Rotary - reverse
 Sand point
 Sonic
 Combination of methods (specify):

37. Well specifications:
 Active: Yes No
 Unsuitable for intended use: Yes No
 Discharge permit: Yes No
 Withdrawal permit: Yes No
 Artesian or flowing: Yes No If so, height (in):
 Nested wells: Yes No If so, number:

38. Surface completion: Concrete pad Yes No
 Protective surface casing: Yes No 24 x 24 x 06
 Water-tight locking cap: Yes No length (in) width (in) height (in)
 Bumper guards: Yes No If so, number: 4
 Weep holes: Yes No If so, number: 2

39. Well development method:
 Bailing Backwashing Compressed air Jetting
 Pumping Surging Combination of methods (specify):

MONITORING WELLS ONLY
 40. Wellhead:
 Manhole cover and gasket: Yes No If so, diameter (in):
 Water-tight locking cap: Yes No
 Flush mount: Yes No No cap: Yes No

41. Dedicated pump:
 Submersible - bladder Submersible - centrifugal No pump

52. Well completion: Casing and screens

From depth (feet)	To depth (feet)	Screenhole diameter (inches)	Casing diam (in) ID	OD	Casing type	Screen slot size
0	54.0	8"	8"	8.5"	PVC Casing	
54.0	64.0	8"	8"	8.5"	PVC Screen	.010

53. Annulus fill and seal

From depth (feet)	To depth (feet)	Material
0	2.0	Concrete
2.0	48.0	Cement + bentonite grout
48.0	51.2	Bentonite Pellets
51.2	64.0	#4 Silica Sand

54. Lithologic log (If more space is needed, continue on separate page)

From depth (ft)	To depth (ft)	Description
		see attached log

55. Sketch map:
 See attached map.

56. Comments:

57. Affirmation: The work described above was done under my supervision, and this report is true and correct to the best of my knowledge. Note: the driller is not responsible for natural groundwater quality or quantity encountered while drilling or completing this well.

Signature of certified driller: [Signature] Date signed: 12-17-2020

Certification number: 0193-0611-00 Drilling company: Geotechnology Inc.

1. Kentucky Well ID (AKGWA) Number: 8007-7207

2. Owner well ID#: B0820
 Upgradient/Background/Reference
 Downgradient Sidegradient

3. Attachments Required:
 1. Site plan or sketch map:
 2. Well location:
 On aerial photo or map, OR
 Obtained by GPS unit:
 Conditionally Required:
 3. Well diagram (monitoring well):
 4. Bacteria analysis (if applicable):
 5. Signed Variance (if applicable):
 Optional:
 6. Drilling log:
 7. Other laboratory analysis report:
 8. Aquifer test results:

27. Install start date: 10 20 20
 Month Day Year
 28. Install end date: 10 21 20
 Month Day Year

Please report depths in feet below ground surface.
 29. Total depth: 64.0
 30. Depth to bedrock: 7.5
 31. Static water level: 59.3
 32. Static water level method: Estimated Measured Reported
 33. Casing 2 foot above flood level: Yes No
 34. Casing height above surface (in):
 outer casing: 2.0
 inner casing: 1.3

WATER WELLS ONLY
 42. Wellhead:
 Sanitary seal: Yes No
 Well cap: Yes No
 Vent: Yes No
 Concrete pad: Yes No
 Turbine plate: Yes No
 Backflow preventer: Yes No
 Upright frost free hydrant with backflow preventer: Yes No
 Expansion tank location:

43. Estimated well yield: gpm gph gpd

44. Well service: # of people served

45. Pitless adapter installed: Yes No
 46. Pump installed:
 Baller or bucket Hand Jet
 Submersible - bladder Turbine
 Submersible - centrifugal No pump
 Depth to intake (ft):

47. Apparent quality:
 APPEARANCE: Clear Cloudy Muddy Turbid
 ODOR: none slight mod. high
 TASTE: none slight mod. high
 Iron Sulfur Salt
 COLOR:

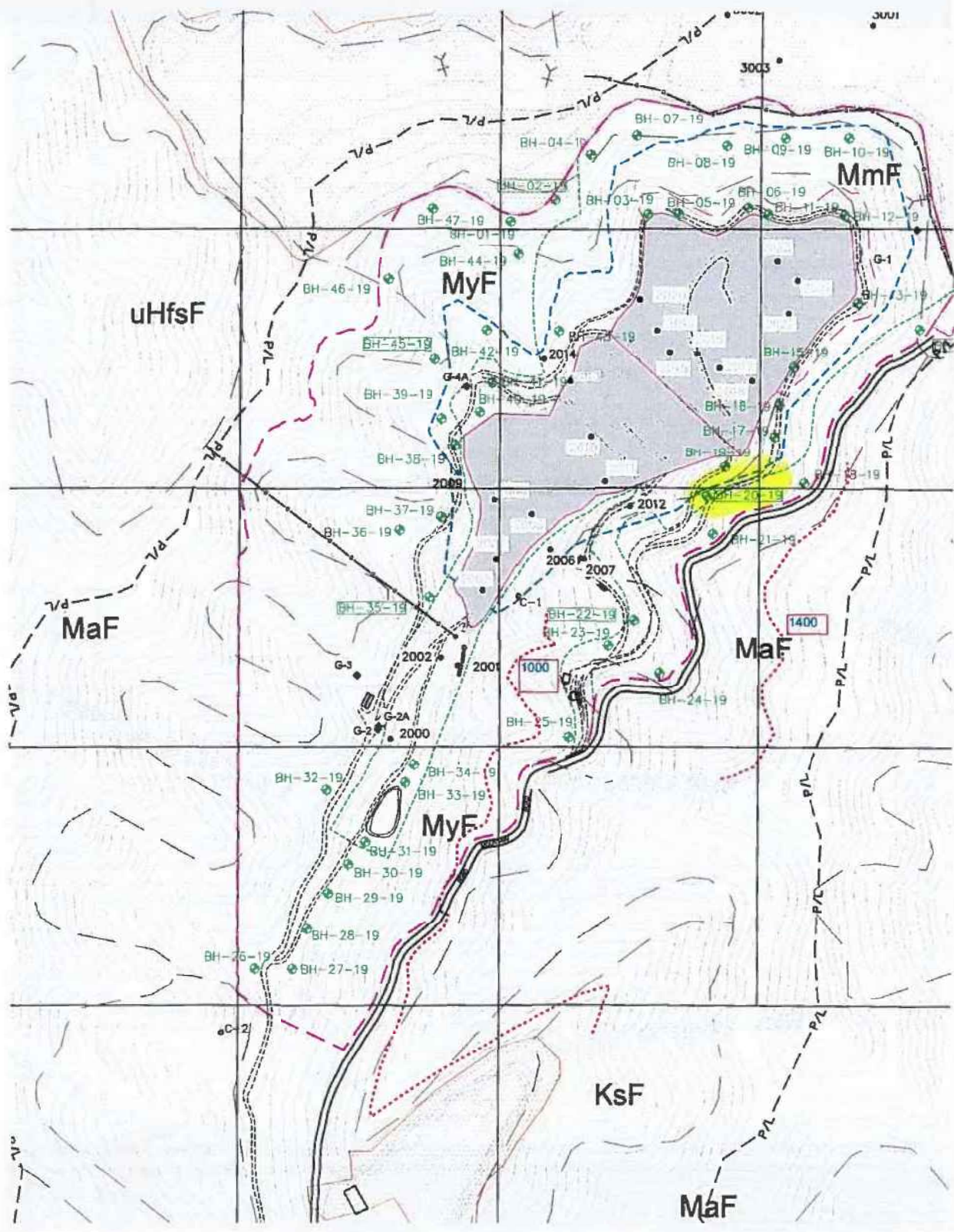
48. Disinfectant:
 Bleach Hypochlorite
 oz qt gal
 lb cups

49. Bacteria Test:
 Total Coliform: ABSENT PRESENT mpn
 E. coli: ABSENT PRESENT mpn
 # colonies per 100 ml

50. Date sampled: Month Day Year

51. Date analyzed:

Date Received: rev July 2019



PermitNo	FeatCLS	Source	Type_Flag	Calc_Acres	MINE_STATU	PER_NAME	PERM_ACT	ACT_INAC	DATE_ISS
98-5029	SF	KGS Project	INACT	4.6576396	RC	A A & W COALS INC	NW 09/17/1979	Released	9/17/1979 0:00
298-5305	SF	KGS Project	INACT	17.22316345	RC	A A & W COALS INC	NW 08/03/1979	Released	8/3/1979 0:00
898-0556	SF	KGS Project	TRNS	1069.899005	RC	BRANHAM & BAKER COAL COMPANY INC	SU 01/30/2004 MT 1 10/17/2002 AM 2 09/19/20	Released	7/15/1999 0:00
98-0094	SF	KGS Project	INACT	60.06188327	RC	CALL & RAMSEY COAL CO INC	MA 10/20/1987 NW 03/28/1980	Released	3/28/1980 0:00
98-5178	SF	KGS Project	INACT	1.87501103	RC	CALL & RAMSEY COAL CO INC	NW 07/15/1980	Released	7/15/1980 0:00
98-5197	SF	KGS Project	INACT	6.87862619	RC	CALL & RAMSEY COAL CO INC	RV 03/12/1984 NW 08/05/1980	Released	8/5/1980 0:00
298-5382	SF	KGS Project	INACT	22.59042549	RC	CALL & RAMSEY COAL CO INC	NW 12/05/1979	Released	12/5/1979 0:00
898-5314	SF	KGS Project	TRNS	5.19542751	RC	CHLOE CREEK DEVELOPMENT CORP	SU 11/02/1992 AM 06/27/1988 NW 08/13/19	Released	8/13/1987 0:00
98-5067	SF	KGS Project	INACT	9.21281149	RC	CLASSIC COAL CORP	RV 01/30/1986 AM 07/14/1982 NW 09/14/19	Released	9/14/1979 0:00
898-0487	SF	KGS Project	TRNS	95.69394909	RC	CORBIN COAL COMPANY INC	SU 04/15/1999 NW 12/11/1997	Released	12/11/1997 0:00
898-4501	SF	KYDMP	TRNS	30.26745926	RC	FORTRESS RESOURCES LLC DBA MCCOY ELKHORN COAL CO	SU 08/05/2021 MT 7 06/22/2017 MT 6 09/04/20	Released	2/9/2015 0:00
898-4501	UG	KYDMP	TRNS	1749.040217	RC	FORTRESS RESOURCES LLC DBA MCCOY ELKHORN COAL CO	SU 08/05/2021 MT 7 06/22/2017 MT 6 09/04/20	Released	2/9/2015 0:00
898-4502	UG	DMP E_Shape	TRNS	2314.969684	RC	FORTRESS RESOURCES LLC DBA MCCOY ELKHORN COAL CO	SU 07/12/2017 MT 4 10/20/2015 MI 10 09/11/20	Released	4/13/2015 0:00
898-4506	UG	KYDMP	TRNS	8838.398624	RC	FORTRESS RESOURCES LLC DBA MCCOY ELKHORN COAL CO	SU 07/14/2017 MT 5 05/25/2017 MT 4 10/27/20	Released	2/10/2015 0:00
898-4510	SF	DMP E_Shape	INACT	47.65778529	RC	FORTRESS RESOURCES LLC DBA MCCOY ELKHORN COAL CO	SU 1 02/11/2015	Released	2/11/2015 0:00
898-4510	UG	DMP E_Shape	INACT	3587.787413	RC	FORTRESS RESOURCES LLC DBA MCCOY ELKHORN COAL CO	SU 1 02/11/2015	Released	2/11/2015 0:00
898-0858	SF	KYDMP	TRNS	279.6107684	RC	GREENHORN LLC	SU 12/15/2011 MI 2 03/07/2011 SU 1 07/08/20	Released	7/8/2010 0:00
98-5039	SF	KGS Project	INACT	12.30040596	RC	INGRAM COAL COMPANY	NW 09/24/1979	Released	9/24/1979 0:00
98-5065	SF	KGS Project	INACT	3.71622272	RC	INGRAM COAL COMPANY	NW 08/29/1979	Released	8/29/1979 0:00
298-7011	SF	KGS Project	INACT	2.4286943	RC	INGRAM COAL COMPANY	SU 09/14/1982	Released	9/14/1982 0:00
498-5065	SF	KGS Project	INACT	2.05656362	RC	JOHNS CREEK COAL COMPANY	MT 09/16/1991 RN 06/08/1989 AM 11/01/19	Released	6/5/1984 0:00
498-5197	SF	KGS Project	INACT	5.15490854	RC	JOHNS CREEK COAL COMPANY	NC 02/26/1991 MA 09/24/1987 NW 08/03/19	Released	8/3/1984 0:00
898-0278	SF	KGS Project	INACT	70.91051926	RC	JOHNS CREEK COAL COMPANY	MI 04/29/1992 MI 04/22/1991 MI 01/10/19	Released	7/31/1989 0:00
898-0281	SF	KGS Project	INACT	66.84119148	RC	JOHNS CREEK COAL COMPANY	MI 06/26/1995 MT 05/27/1992 MI 11/07/19	Released	11/16/1989 0:00
898-5417	SF	DMP E_Shape	TRNS	47.65778529	RC	JOHNS CREEK COAL COMPANY	SU 02/11/2015 MI 4 02/05/2007 MT 3 07/30/20	Released	5/24/1989 0:00
898-5417	UG	DMP E_Shape	TRNS	3587.787413	RC	JOHNS CREEK COAL COMPANY	SU 02/11/2015 MI 4 02/05/2007 MT 3 07/30/20	Released	5/24/1989 0:00
898-9020	SF	KGS Project	INACT	7.02741305	RC	JOHNS CREEK COAL COMPANY	MI 12/09/1987 NW 08/27/1987	Released	8/27/1987 0:00
898-0175	SF	KGS Project	INACT	30.93562361	RC	JUSTIN COAL	NW 05/15/1985	Released	5/15/1985 0:00
898-0881	SF	DMP E_Shape	ACT	286.1216469	SP	KENTUCKY FUEL CORPORATION	MT 5 09/15/2016 MI 5 10/14/2014 MI 4 04/07/20	Active	12/15/2011 0:00
898-0882	SF	DMP E_Shape	ACT	1221.827242	SP	KENTUCKY FUEL CORPORATION	RN 3 04/16/2021 MT 5 09/03/2019 MI 11 03/15/20	Active	12/21/2011 0:00
898-0883	SF	DMP E_Shape	ACT	570.9644542	SP	KENTUCKY FUEL CORPORATION	MI 10 08/18/2021 RN 4 02/18/2021 SU 4 11/03/20	Active	11/3/2011 0:00
898-0764	SF	DMP E_Shape	TRNS	473.8204258	RC	LCC KENTUCKY LLC	SU 09/07/2012 MT 4 07/05/2012 MI 4 03/12/20	Released	3/17/2006 0:00
898-7076	SF	KYDMP	TRNS	199.8617938	RC	LCC KENTUCKY LLC	SU 06/22/2012 RN 4 07/08/2011 MI 3 03/24/20	Released	11/21/2005 0:00
898-7100	SF	KYDMP	TRNS	199.8617938	RC	LCC KENTUCKY LLC	SU 08/15/2012 SU 3 06/22/2012	Released	6/22/2012 0:00
898-1027	SF	DMP E_Shape	TRNS	475.2398664	RC	LEXINGTON COAL COMPANY LLC	SU 08/22/2019 SU 5 11/14/2018	Released	11/14/2018 0:00
898-4593	UG	DMP E_Shape	ACT	24018.11905	A1	LEXINGTON COAL COMPANY LLC	MI 39 03/12/2021 MI 38 05/13/2020 RN 7 04/23/20	Active	7/31/2018 0:00
898-4618	SF	KYDMP	ACT	5.19201324	P1	LEXINGTON COAL COMPANY LLC	SU 1 06/22/2018	Active	6/22/2018 0:00
898-4618	UG	KYDMP	ACT	1020.77208	P1	LEXINGTON COAL COMPANY LLC	SU 1 06/22/2018	Active	6/22/2018 0:00
898-7118	SF	KYDMP	TRNS	199.8617938	RC	LEXINGTON COAL COMPANY LLC	SU 08/12/2019 SU 5 11/30/2018	Released	11/30/2018 0:00
898-1043	SF	DMP E_Shape	INACT	475.2398664	RC	MC MINING LLC	MI 8 08/05/2021 MI 7 06/18/2020 SU 6 08/22/20	Released	8/22/2019 0:00
898-4085	UG	DMP E_Shape	ACT	13756.2648	A1	MC MINING LLC	RN 7 09/27/2019 MI 27 11/29/2018 MI 26 05/24/20	Active	5/1/2000 0:00
898-7124	SF	KYDMP	ACT	199.8617938	A2	MC MINING LLC	MI 4 02/12/2021 SU 6 08/12/2019	Active	8/12/2019 0:00
898-4032	SF	KYDMP	TRNS	30.26745926	RC	MCCOY ELKHORN COAL CORPORATION	SU 02/09/2015 RN 5 04/27/2012 MT 5 10/12/20	Released	8/14/1987 0:00
898-4032	UG	KYDMP	TRNS	1749.040217	RC	MCCOY ELKHORN COAL CORPORATION	SU 02/09/2015 RN 5 04/27/2012 MT 5 10/12/20	Released	8/14/1987 0:00
898-4093	SF	CHIA	TRNS	2321.437462	RC	MCCOY ELKHORN COAL CORPORATION	SU 04/13/2015 MA 9 04/13/2015 MI 8 07/17/20	Released	3/23/2000 0:00

898-4093	UG	KYDMP	TRNS	2314.969684	RC	MCCOY ELKHORN COAL CORPORATION	SU	04/13/2015	MA	9	04/13/2015	MI	8	07/17/20	Released	3/23/2000	0:00	
898-4152	UG	KYDMP	TRNS	8838.398624	RC	MCCOY ELKHORN COAL CORPORATION	SU	02/10/2015	MI	5	12/10/2014	MI	4	05/23/20	Released	8/28/2002	0:00	
898-4569	UG	DMP E_Shape	ACT	2314.969684	A2	MCCOY ELKHORN COAL LLC DBA MCCOY ELKHORN COAL COMP	MI	11	11/17/2021	SU	3	07/12/2017		Active	7/12/2017	0:00		
898-4573	UG	KYDMP	ACT	8838.398624	A1	MCCOY ELKHORN COAL LLC DBA MCCOY ELKHORN COAL COMP	MA	7	12/09/2021	RN	3	10/04/2021	SU	2	07/14/20	Active	7/14/2017	0:00
898-4693	SF	KYDMP	ACT	30.26745926	A2	MCCOY ELKHORN COAL LLC DBA MCCOY ELKHORN COAL COMP	SU	5	08/05/2021						Active	8/5/2021	0:00	
898-4693	UG	KYDMP	ACT	1749.040217	A2	MCCOY ELKHORN COAL LLC DBA MCCOY ELKHORN COAL COMP	SU	5	08/05/2021						Active	8/5/2021	0:00	
898-5117	SF	KGS Project	INACT	5.5489979	FF	NOR MINING INC	MT	03/19/1993	MI		06/28/1990	RN		03/21/19	Released	12/4/1984	0:00	
98-0124	SF	KGS Project	INACT	40.7775169	RC	RASCHELLA COAL CORPORATION	MA	02/29/1988	NW		12/30/1980				Released	12/30/1980	0:00	
898-0930	SF	DMP E_Shape	TRNS	475.2398664	RC	REVELATION ENERGY LLC	SU	11/14/2018	MT	6	09/22/2017	MI	6	02/20/20	Released	9/7/2012	0:00	
898-7097	SF	KYDMP	TRNS	199.8617938	RC	REVELATION ENERGY LLC	SU	11/30/2018	MT	5	04/12/2016	MT	4	03/22/20	Released	8/15/2012	0:00	
898-5168	UG	DMP E_Shape	TRNS	24018.11905	RC	SIDNEY COAL COMPANY INC	SU	07/14/2017	MI	35	04/20/2017	MI	34	01/12/20	Released	1/28/1985	0:00	
898-5977	SF	KYDMP	TRNS	5.19201324	RC	SIDNEY COAL COMPANY INC	SU	06/22/2018	MT	5	02/06/2018	MT	4	11/20/20	Released	10/29/1998	0:00	
898-5977	UG	KYDMP	TRNS	1020.77208	RC	SIDNEY COAL COMPANY INC	SU	06/22/2018	MT	5	02/06/2018	MT	4	11/20/20	Released	10/29/1998	0:00	
898-4415	UG	DMP E_Shape	TRNS	24018.11905	RC	SIDNEY COAL COMPANY LLC	SU	07/31/2018	MI	36	04/30/2018	MTS	2	04/10/2	Released	7/14/2017	0:00	
98-5468	SF	KGS Project	INACT	2.12821764	RC	T J CONSTR CO	NW	07/14/1982							Released	7/14/1982	0:00	
898-4104	SF	KYDMP	INACT	9.09923681	RC	WELLMORE COAL CORPORATION DBA THE BLACK DIAMOND CO	SU	6	03/03/2003						Released	3/3/2003	0:00	
898-4104	UG	KYDMP	INACT	607.0011385	RC	WELLMORE COAL CORPORATION DBA THE BLACK DIAMOND CO	SU	6	03/03/2003						Released	3/3/2003	0:00	

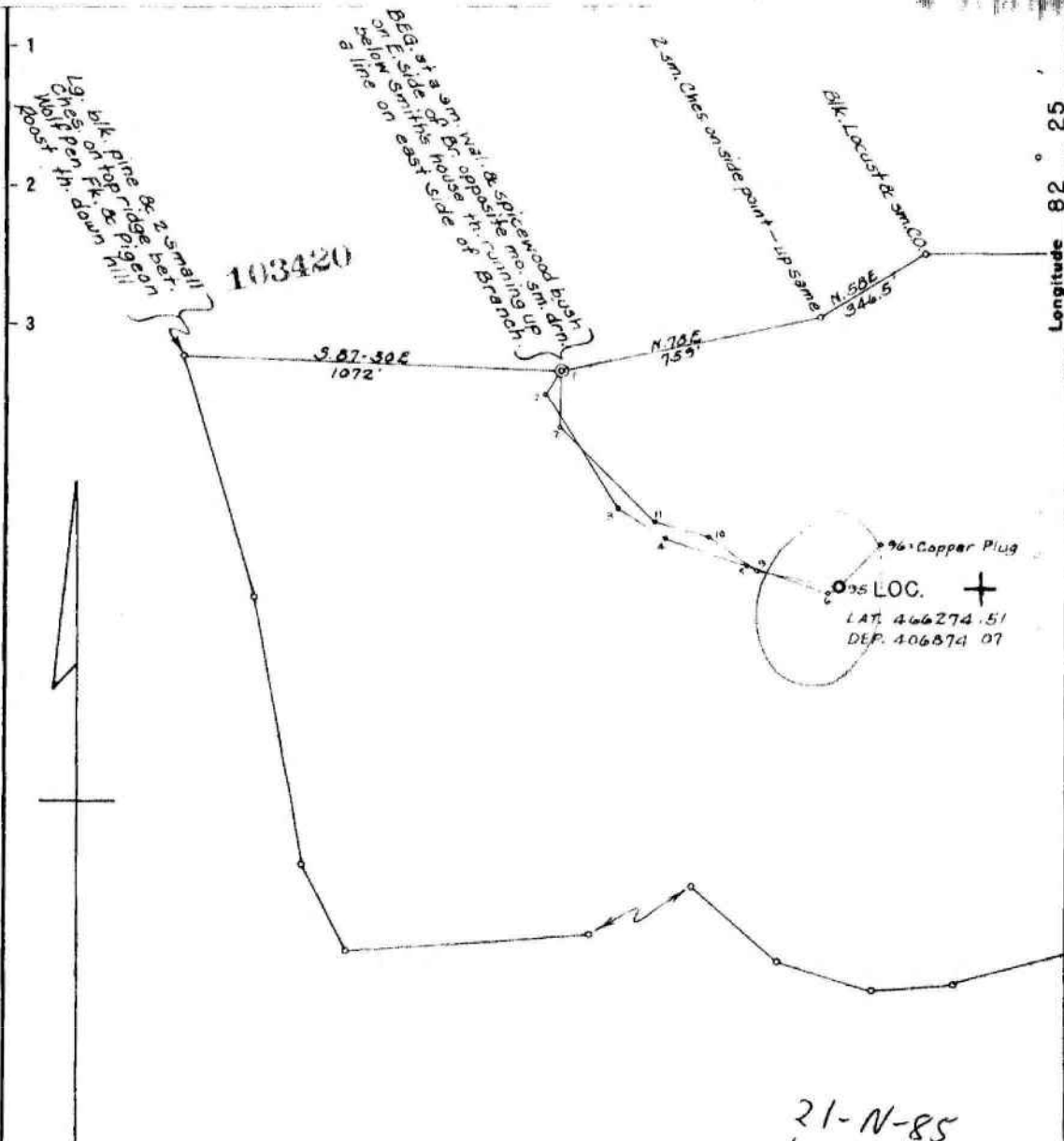
**Oil and Gas Well Report: 40112****Oil and Gas Well Information:****Record Number:** 40112**Page Documents (if available):** PDF Document

(https://kgs.uky.edu/OG_images/0/0/0/4/0/R00040112/R00040112.pdf)

Log Download (if available): n/a**Permit Number:** 915EF**Well Number:** 6056**Quadrangle:** Meta**County:** Pike**Lat, Lon (NAD 83):** 37.593784, -82.428717**KY Carter Coordinates:** 21-N-85 2300N, 1300W**Surface Elevation:** 1128 ft**Vertical Depth:** 3783 ft**Measured (horizontal) Depth:****Operator:** KENTUCKY WEST VIRGINIA GAS CO**Farm Name:** FERGUSON, J LEE**Completion Date:** 8/6/1952**Total Depth Formation:** Devonian-Ohio Sh**Associated data and reports (if available):****Horizontal Survey:** n/a**Core Report:** n/a**Core Analysis:** n/a**Sample Report:** n/a**Oil Production Data:** n/a**Gas Production Data:** n/a**Pay Report:** n/a**Formation Tops Data:** n/a

Record No: 40112 Permit No: 915EF
 Farm Name: FERGUSON, J LEE
 Well No: 6056
 Operator: KENTUCKY WEST VIRGINIA GAS CO
 Location: 2300 FNL x 1300 FWL 21- N-85
 County: PIKE Elevation: 1128
 THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
 THE ACCURACY OF INFORMATION ON THIS DOCUMENT

Latitude 37° 40'



New Location
 Drill Deeper
 Abandonment

permits. 915 E. F.

21-N-85
 1300'FWLx2300'FNL

N. 172.12 — E. 231.64

Company KENTUCKY WEST VA. GAS CO.
 Address ASHLAND, KY.
 Farm J. Lee Ferguson
 Tract N-2366 Acres 149.62 Lease No. 1-1012
 Well (Farm) No. _____ Serial No. 6056
 Elevation (Spirit Level) 1128.02'
 Quadrangle WILLIAMSON S.W. (Meta 7)
 County PIKE District JOHNS CR.
 Engineer C. D. Hunter
 Engineer's Registration No. 1374
 File No. _____ Drawing No. _____
 Date 1-21-52 Scale 1" = 400'

STATE OF KENTUCKY
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 LEXINGTON

WELL LOCATION MAP

FILE NO. _____

+ 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.

Record No: 40112 Permit No: 915EF

Farm Name: FERGUSON, J LEE

Well No: 6056

Operator: KENTUCKY WEST VIRGINIA GAS CO

Location: 2300 FNL x 1300 FWL 21-N-85

County: PIKE Elevation: 1128

THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT THE ACCURACY OF INFORMATION ON THIS DOCUMENT

J. Lee Ferguson

Pike County

Pigeonroost Branch

Commenced: 3-18-52

Completed: 8-6-52

Rig: Hurt & Sons

C. H. Elevation: 1128.02'

Formation	From	To
Clay	0	15
Blue Mud	15	35
Sand	35	55
Coal	55	57
Sand	57	95
Slate	95	115
Sand	115	130
Slate	130	218
Sand	218	290
Slate	290	380
Sand	380	392
Coal	392	395
Slate	395	440
Coal	440	443
Slate	443	470
Sand	470	555
Slate	555	570
Coal	570	575
Slate	575	590
Sand	590	640
Slate	640	780
Sand	780	845
Slate	845	920
Sand	920	950
Slate	950	970
Sand	970	1035
Slate	1035	1070
Salt Sand	1070	1375
Slate	1375	1395
Salt Sand	1395	1765
Slate	1765	1779
Lime & Shells	1779	1802
Red Rock	1802	1832
Slate & Shells	1832	1838
Sand	1838	1940
Slate & Shells	1940	1965
Maxon Sand	1965	2083
Slate & Shells	2083	2118
Bradley Sand	2118	2154
Little Lime	2154	2181
Big Lime	2181	2398
Slate & Shells	2398	2410
Big Injgn	2410	2460
Slate & Shells	2460	2900
Coffee Shale	2900	2920
Berea Grit	2920	3025
Brown Shale	3025	3120
Light Shale	3120	3270
Brown Shale	3270	3365
Light Shale	3365	3535

Casing Record

14"	36'	36'
10"	234'	81'
8 1/2"	1801'	1801'
6-5/8"	2214'	2098'
2" vent	591'	
Water	72'	Hole full
Water	392'	1 B.P.H.
Gas	2003'	
Water	2005'	Hole full
Oil	2125'-2130'	

Shot 8-11-52 from 3068' to 3775' in Shale with 7200# of Gelatin.

Production before shot -0-
Production after shot 28%

DRY HOLE

Formation	From	To
Brown Shale	3535	3775
Total depth	3775	

Record No: 40112 Permit No: 915EF
Farm Name: FERGUSON, J LEE
Well No: 6056
Operator: KENTUCKY WEST VIRGINIA GAS CO
Location: 2300 FNL x 1300 FWL 21-N-85
County: PIKE Elevation: 1128
THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
THE ACCURACY OF INFORMATION ON THIS DOCUMENT

Per K-20161

MANNER OF

915

113422

As Required by Law
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF MINES AND MINERALS

P. O. Box 680
LEXINGTON, KY.

Oil and Gas Division



The Elk Horn Coal Corporation
Coal Operator or Owner

Kentucky West Virginia Gas Company
Name of Well Operator

Wayland, Kentucky
Address

605 Second National Bank Building
Ashland, Kentucky
Complete Address

Coal Operator or Owner

October 6, 1952
Well Location

Address

Pike County

Coal Operator or Owner

Well No. 6056

Address

J. Lee Ferguson Farm

Affidavit to be made in triplicate, one copy to be mailed by registered mail to the Department of Mines and Minerals, one copy to be retained by the well operator and the third copy (and extra copies if required) to be mailed by registered mail to each coal operator above named at their respective addresses.

AFFIDAVIT

STATE OF KENTUCKY,
County of Pike ss:

Andrew J. Akers and O. J. Maynard
being first duly sworn according to law, depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Kentucky West Virginia Gas Co., well operator, and participated in the work of plugging and filling the above well; that said work was commenced on the 25th day of August, 1952, and that the well was plugged and filled in the following manner:

Manner in which sand was plugged:

(See reverse side)

Manner in which coal was plugged:

Description of monument:

(The above description must be in detail and in accordance with the law.)

and that the work of plugging and filling said well was completed on the 19th day of September, 1952

Sworn to and subscribed before me this 31st day of October, 1952

Andrew J. Akers
O. J. Maynard
Fred Meece
Notary Public

My commission expires:

January 17, 1955

**PLUGGING AND FILLING WELL
RECORD**

Proposed Well No.
Drilled under Permit No.
Oil and Gas Operator
Farm
County

Form F-12

Bridged hole at 3025'. Filled hole with stone to 3000'. Drove 6-5/8" M. & F. wood plug at 3000'. Filled hole with clay and stone to 2420'. Drove 6-5/8" M. & F. wood plug at 2420'. Pulled 6-5/8" casing, 2188'. Filled hole with clay to 2160'. Drove 8 1/4" M. & F. wood plug at 2160'. Filled hole with clay and stone to 2105'. Drove 8 1/4" M. & F. wood plug at 2105'. Filled hole with clay to 1940'. Drove 8 1/4" M. & F. wood plug at 1940'. Pulled 8 1/4" casing, 1784'. Filled hole with clay and stone to 1070'. Drove 10" wood plug at 1070'. Filled hole with clay and stone to 610'. Drove 10" wood plug at 610'. Pulled 10" casing, 233'. Ran 610' of 2" vent pipe with anchor packer on bottom joint. Ran about 50# of fine sand or clean dirt on packer. Ran 2 bags of cement on sand and dirt and let set for 24 hours. Ran 2" bailer inside vent pipe to test packer. Filled hole with cement to 362'. Filled hole with clay and stone to 77'. Pulled drive pipe. Filled hole with cement to 35'. Filled hole with clay and stone to 5'. Filled hole with cement to surface. Left 2" vent pipe extending 10' above surface with a 2" st. ell on top.

Record No: 40112 Permit No: 915EF
Farm Name: FERGUSON, J LEE
Well No: 4056
Operator: KENTUCKY WEST VIRGINIA GAS CO
Location: 2300 FNL x 1300 FWL 21-N-85
County: PIKE Elevation: 1128
THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
THE ACCURACY OF INFORMATION ON THIS DOCUMENT

KENTUCKY GEOLOGICAL SURVEY WELL TICKET

TIGHT FORMATION CARD

REFERENCE NO.										
COUNTY CODE		PERMIT NO.								YEAR REPORTED
2	3	4	5	6	7	8	9	10	11	
19	5									52

Duplicate columns 2-11 on each card coded on this page

916

CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	PERMEABILITY (md)	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PAY NO.
	TOP	BOTTOM	CODE	NAME						
7	1965	2083	332	HAYN			ACWE			

CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	PERMEABILITY (md)	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PAY NO.
	TOP	BOTTOM	CODE	NAME						
7	2181	2398	335	BIGL			NONE	1 BOPD		

CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	PERMEABILITY (md)	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PAY NO.
	TOP	BOTTOM	CODE	NAME						
7	2416	2460	338	WWD			NONE			

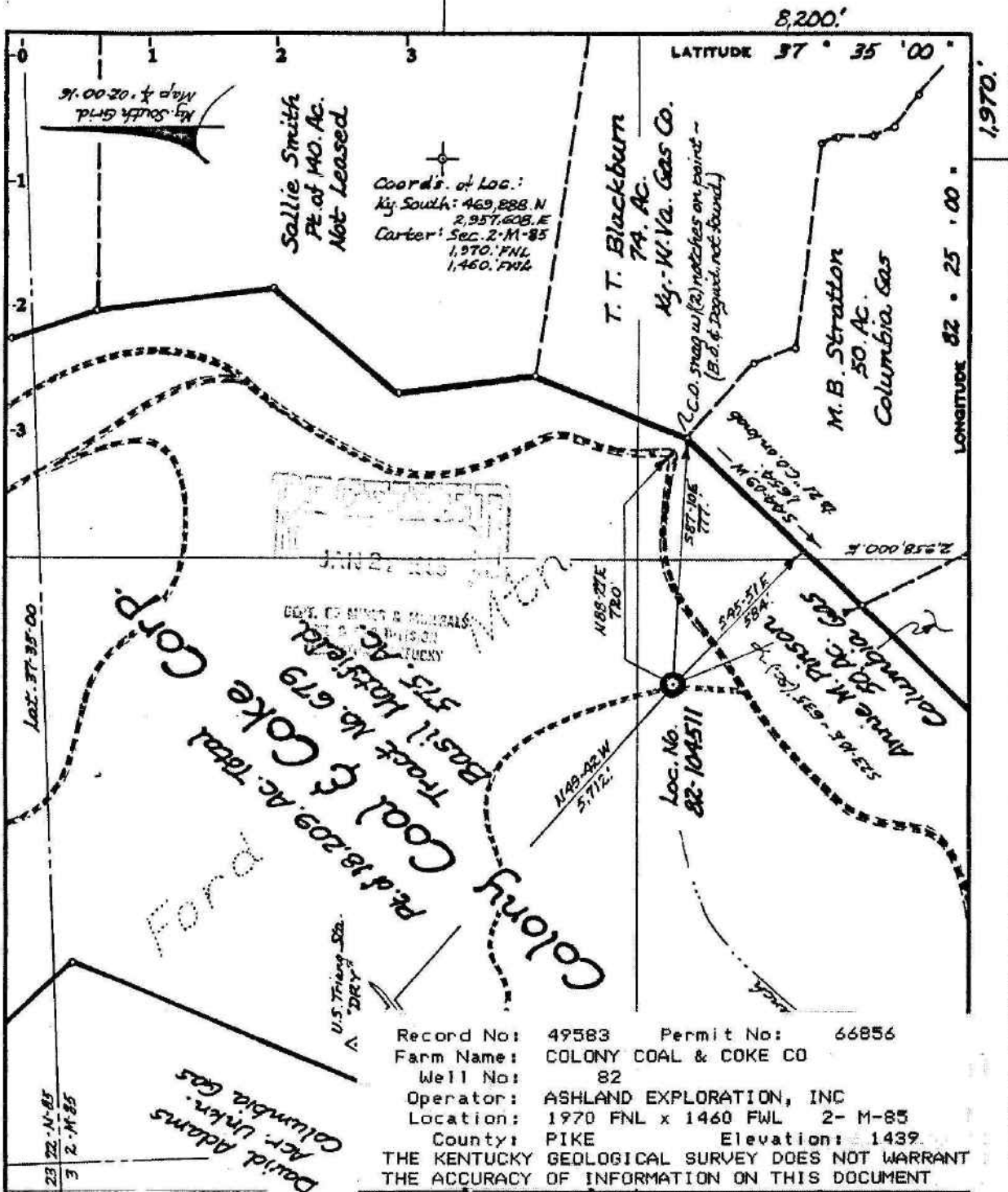
CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	PERMEABILITY (md)	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PAY NO.
	TOP	BOTTOM	CODE	NAME						
7	2920	3625	339	BREA			NONE			

CARD NO.	INTERVAL	FORMATION	NATURAL	PERMEABILITY	TREATMENT	INITIAL	COMMENTS	PAY NO.
	Record No:	Permit No:	(UNTREATED) OPEN FLOW IN MCF	(md)	(ACID, SHOT, FRAC, NONE)	(AFTER TREATMENT) OPEN FLOW IN MCF		
7	40112	915EF						

CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	PERMEABILITY (md)	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PAY NO.
	TOP	BOTTOM	CODE	NAME						
7										

Farm Name: FERGUSON, J LEE
 Well No: 6056
 Operator: KENTUCKY WEST VIRGINIA GAS CO
 Location: 2300 FNL x 1300 FWL 21-N-85
 County: PIKE Elevation: 1128
 THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT THE ACCURACY OF INFORMATION ON THIS DOCUMENT

**Oil and Gas Well Report: 49583****Oil and Gas Well Information:****Record Number:** 49583**Page Documents (if available):** PDF Documenthttps://kgs.uky.edu/OG_images/0/0/0/4/9/R00049583/R00049583.pdf**Log Download (if available):** Download Log(s) (<https://kgs.uky.edu/kygeode/services/oilgas/elogDownload.asp?recno=49583>)**Permit Number:** 66856**Well Number:** 82**Quadrangle:** Meta**County:** Pike**Lat, Lon (NAD 83):** 37.578023, -82.444833**KY Carter Coordinates:** 2-M-85 1970N, 1460W**Surface Elevation:** 1439 ft**Vertical Depth:** 4120 ft**Measured (horizontal) Depth:****Operator:** ASHLAND EXPLORATION, INC**Farm Name:** COLONY COAL & COKE CO**Completion Date:** 4/9/1985**Total Depth Formation:** Devonian-Ohio Sh**Associated data and reports (if available):****Horizontal Survey:** n/a**Core Report:** n/a**Core Analysis:** n/a**Sample Report:** n/a**Oil Production Data:** Oil Production Report<https://kgs.uky.edu/kygeode/services/oilgas/prodReport.asp?recNum=49583&prodType=oil>**Gas Production Data:** Gas Production Report<https://kgs.uky.edu/kygeode/services/oilgas/prodReport.asp?recNum=49583&prodType=gas>**Pay Report:** Pay Report (<https://kgs.uky.edu/kygeode/services/oilgas/payReport.asp?id=49583>)**Formation Tops Data:** Tops Report (<https://kgs.uky.edu/kygeode/services/oilgas/topsReport.asp?recNum=49583>)



Record No: 49583 Permit No: 66856
 Farm Name: COLONY COAL & COKE CO
 Well No: 82
 Operator: ASHLAND EXPLORATION, INC
 Location: 1970 FNL x 1460 FWL 2-M-85
 County: PIKE Elevation: 1439
 THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT THE ACCURACY OF INFORMATION ON THIS DOCUMENT

New Location...
 Drill Deeper...
 Abandonment...

George Gary Corn
 "I hereby certify that the above plat is accurate and correct to the best of my knowledge and belief."

Company *Ashland Exploration, Inc.*
 Address *P.O. Box 391 - Ashland, Ky. 41114*
 Farm *Colony Coal & Coke Corp.*
 Tract *679* Acres *575* Lease No. *M.R. 351*
 Well (Farm) No. *82* Serial No. *104511*
 Elevation (Spirit Level) *1439.4 (on auger bench)*
 Quadrangle *Meta*
 County *Pike* District *~*
 Engineer *George Gary Corn*
 Engineer's Registration No. *4864 & L.S. 2013*
 File No. *54-01* Drawing No. *~*
 Date *Jan'y. 18, 1985* Scale *400*

STATE OF KENTUCKY
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 LEXINGTON

WELL LOCATION MAP

FILE NO. _____

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000, latitude and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF MINES AND MINERALS
OIL AND GAS DIVISION
BOX 690
LEXINGTON, KENTUCKY 40586

Record No: 49583 Permit No: 66856
Farm Name: COLONY COAL & COKE CO
Well No: 82
Operator: ASHLAND EXPLORATION, INC
Location: 1970 FNL x 1460 FWL 2- M-85
County: PIKE Elevation: 1439
THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
THE ACCURACY OF INFORMATION ON THIS DOCUMENT

TYPE OR PRINT

WELL IDENTIFICATION

Permit No. 66856
Operator Ashland Exploration, Inc.
Farm Name Colony Coal & Coke Corp. Well No. 82

TYPE OPERATION LOCATION
Twin Well County Pike
Re-Open
New Well Sec. 2 Letter M Number 85
Workover
Deepening 1970 FNL 1460 FWL XXX

ELEVATION 1444.6 (ground) 1454.6 (K.B.)

TOTAL DEPTH DRILLED 4120'
OPERATIONAL DATES

Commenced 3/26/85 Completed 4/9/85

Placed in Operation 6/12/85

Plugged Shut-In

DRILLING METHOD

Cable Tool: From _____ To _____

Rotary: Conventional , Air , Mud

From 0 To TD

GEOPHYSICAL LOGS RUN

(Electrical, induction, sonic, gamma ray, neutron, density, etc.)

Type	From	To
Density	<u>0</u>	<u>TD</u>
Gamma Ray	<u>0</u>	<u>TD</u>
Induction	<u>0</u>	<u>TD</u>
Temperature	<u>2350</u>	<u>TD</u>

WATER ENCOUNTERED

(Fresh, salt, sulfur)

Type	From	To
Salt	<u>1114</u>	<u>2427</u>

Comments Carried wtr to 8 5/8" csg point

TYPE OF COMPLETION (Check One)

Dry Hole Shot-In or Producing?
Oil Producing
Gas

ENHANCED RECOVERY: Water Injection Gas Injection
SERVICE WELL: Water Supply Salt Water Disposal Observation

GAS STORAGE: Injection-Extraction Other
Other Describe _____

INITIAL PRODUCTION

Oil: Natural _____ B/D _____ Date _____

After Treatment _____ B/D _____ Date _____

Gas: Natural 15 MCF 4/8/85 Date _____

Against Backpressure of _____ PSI

Shut-in Pressure _____ after _____ hours

After Treatment * 489 MCF 5/16/85 Date _____

* (Dev. Shale & Berea only - Maxton - dead)

Against Backpressure of _____ PSI

Shut-in Pressure Not available after _____ hours

COMPLETION INTERVAL

Formation Name	Interval
L. Dev. Shale	<u>3930-3950</u>

Berea w/U. Dev. Shale	<u>3279-3605</u>
-----------------------	------------------

Maxton	<u>2224-2229</u>
--------	------------------

WELL TREATMENT

	In Open Hole	Thru Perforation
Shot _____ qts. _____ Interval	<input type="checkbox"/>	<input type="checkbox"/>
Shot _____ qts. _____ Interval	<input type="checkbox"/>	<input type="checkbox"/>
Acid _____ gals. _____ Interval	<input type="checkbox"/>	<input type="checkbox"/>
Acid <u>500</u> gals. <u>2224-2229</u> Interval	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Frac. <u>1,650,000</u> SPT/N ₂ <u>3930-50</u> Interval	<input type="checkbox"/>	<input checked="" type="checkbox"/>
_____ lbs./sand		
Frac. <u>15,414</u> gals. <u>3279-3605</u> Interval	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>85,000</u> lbs./sand		

CASING DATA

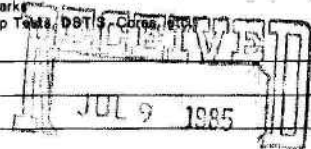
Casing Outside Diameter	Hole Diameter	Depth	Cement No. Sks.	Pulled Yes/No
<u>13 3/8"</u>	<u>17 1/2"</u>	<u>31</u>	<u>20</u>	<u>No</u>
<u>8 5/8"</u>	<u>12 1/4"</u>	<u>2427</u>	<u>700</u>	<u>No</u>
<u>4 1/2"</u>	<u>7 7/8"</u>	<u>4107</u>	<u>230</u>	<u>No</u>

Cement yield in cubic feet/sack = 1.18 (1.55 on 8 5/8" string)

Comments Cmt to surface on 13" & 8" strings

OCCURRENCE OF OIL AND GAS

Formation	Interval	Remarks (Shows of Oil and Gas, Fill-up Tests, DST's, Cores, etc.)
<u>Dev. Shale</u>	<u>4120</u>	<u>Show of gas</u>



The undersigned hereby swears (or affirms) that the foregoing facts given are true as therein set forth.

Dates this 8 day of July, 19 85

Steve S. Wina
Signature

Engineering Technician
Title

FORMATION RECORD

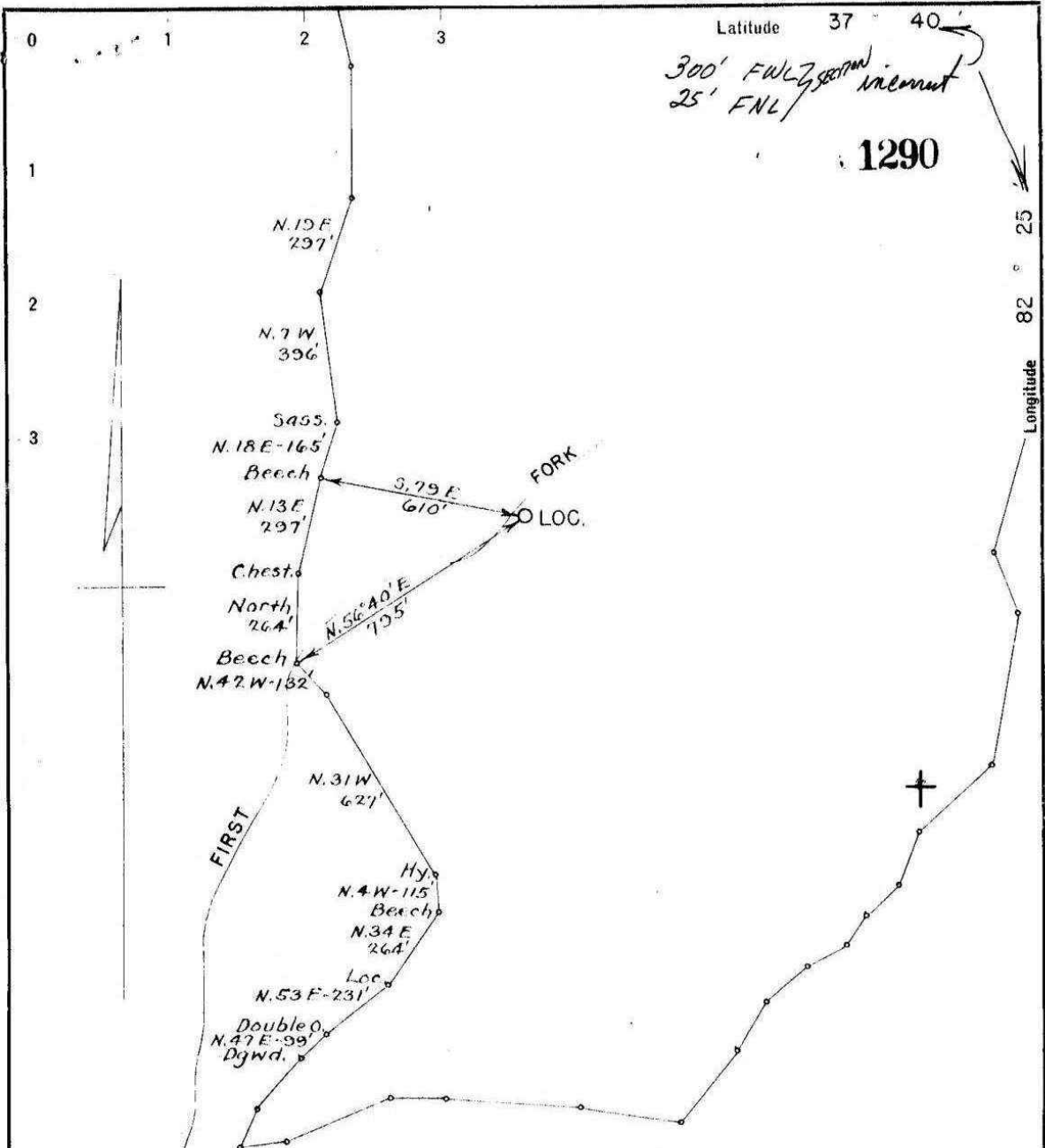
From	To	Rock Type (describe rock types and other materials penetrated and record occurrences of oil, gas and water from surface to total depth)	From	To	Rock Type (describe rock types and other materials penetrated and record occurrences of oil, gas and water from surface to total depth)
0	1345	Shale w/sand breaks			
1345	2068	Salt Sand			
2068	2075	Shale			
2075	2089	Lime			
2089	2172	Shale			
2172	2184	Sand			
2184	2219	Shale			
2219	2245	Maxton			
2245	2259	Shale			
2259	2371	Maxton			
2371	2411	Shale & Lime			
2411	2449	Shale			
2449	2489	Little Lime			
2489	2493	Pencil Cave			
2493	2685	Big Lime			
2685	3182	Borden			
3182	3213	Sunbury Shale			
3213	3292	Berea			
3292	TD	Devonian Shale			

DTD 4120
LTD 4121

Record No: 49583 Permit No: 66856
 Farm Name: COLONY COAL & COKE CO
 Well No: 82
 Operator: ASHLAND EXPLORATION, INC
 Location: 1970 FNL x 1460 FWL 2- M-85
 County: PIKE Elevation: 1439
 THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
 THE ACCURACY OF INFORMATION ON THIS DOCUMENT

**Oil and Gas Well Report: 40045****Oil and Gas Well Information:****Record Number:** 40045**Page Documents (if available):** PDF Documenthttps://kgs.uky.edu/OG_images/0/0/0/4/0/R00040045/R00040045.pdf**Log Download (if available):** n/a**Permit Number:** 75EF**Well Number:** 5880**Quadrangle:** Meta**County:** Pike**Lat, Lon (NAD 83):** 37.583461, -82.432168**KY Carter Coordinates:** 21-N-85 10S, 300W**Surface Elevation:** 905 ft**Vertical Depth:** 3554 ft**Measured (horizontal) Depth:****Operator:** KENTUCKY WEST VIRGINIA GAS CO**Farm Name:** PINSON, THOMAS**Completion Date:** 7/22/1949**Total Depth Formation:** Devonian-Ohio Sh**Associated data and reports (if available):****Horizontal Survey:** n/a**Core Report:** n/a**Core Analysis:** n/a**Sample Report:** n/a**Oil Production Data:** Oil Production Report<https://kgs.uky.edu/kygeode/services/oilgas/prodReport.asp?recNum=40045&prodType=oil>**Gas Production Data:** Gas Production Report<https://kgs.uky.edu/kygeode/services/oilgas/prodReport.asp?recNum=40045&prodType=gas>**Pay Report:** Pay Report (<https://kgs.uky.edu/kygeode/services/oilgas/payReport.asp?id=40045>)**Formation Tops Data:** n/a

1-M-85



New Location.
 Drill Deeper.....
 Abandonment.....

Record No: 40045 Permit No: 75EF
 Farm Name: PINSON, THOMAS
 Well No: 5880
 Operator: KENTUCKY WEST VIRGINIA GAS CO
 Location: 10 FSL x 300 FWL 21-N-85
 County: PIKE Elevation: 905
 THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
 THE ACCURACY OF INFORMATION ON THIS DOCUMENT

Company KENTUCKY WEST VA. GAS CO.
 Address ASHLAND, KY.
 Farm Thomas Pinson
 Tract Acres 196.77 Lease No. 8-384
 Well (Farm) No. _____ Serial No. 5880
 Elevation (Spirit Level) 905.0'
 Quadrangle WILLIAMSON S.W. (META)
 County PIKE District JOHNS CREEK
 Engineer C. W. Hunter
 Engineer's Registration No. 1374
 File No. _____ Drawing No. _____
 Date 4-7-49 Scale 1" = 400'

STATE OF KENTUCKY
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 LEXINGTON

WELL LOCATION MAP

FILE NO. _____

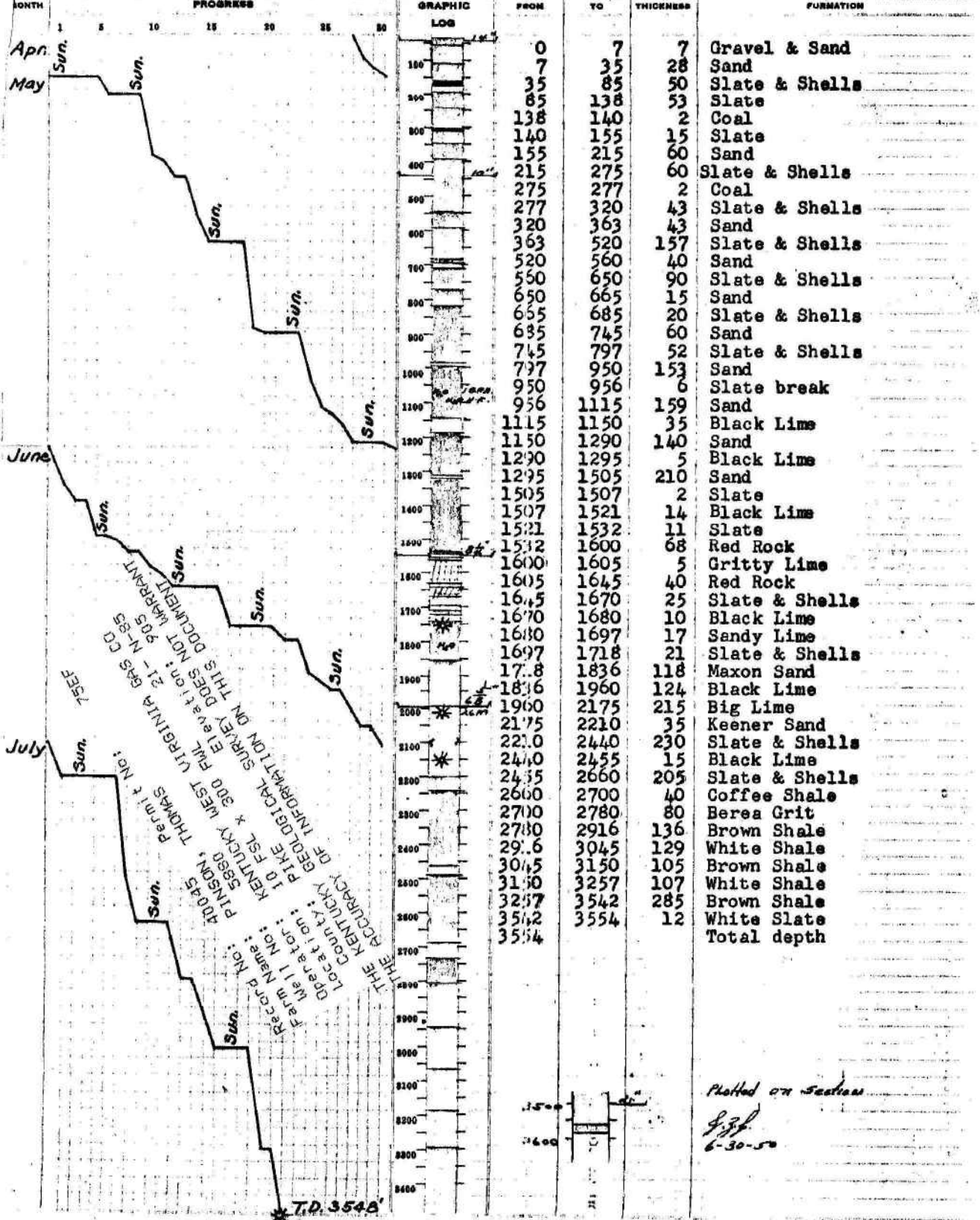
+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

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

CASING AND TUBING				PACKERS			GAS, WATER AND OIL RECORD			
SIZE	PUT IN WELL	PULLED	CASING FT.	SIZE	MAKE	SET AT	LIQUID OR GAS	DEPTH	FT. RAISED IN HOLE	VOLUME
4"	23'	5'		6-5/8"	Bottom Hole	1961'	Water	1040'	-1050'	1 Bp.H.
DN	410'			6-5/8" x 2"	Hookwall	2075'	Water	1060'		Hole full
2"	1512'	1512'					Gas	1734'		Show
1-5/8"	1961'						Water	1783'	-1790'	
"	3534'						Gas	1986'	-1991'	26M
							Gas	2121'	-2131'	58M
							Cave	2471'	-2536'	

RECORD OF SHOT							
DATE SHOT	FROM	TO	SAND	TYPE OF EXPLOSIVE	QUANTITY	PRODUCTION BEFORE SHOT	PRODUCTION AFTER SHOT
7-25-49	2792'	3546'	Shale	Gelatin	6600#	26M	63M

Gelatin: American



Plotted on Section
 6-30-50

1-M-85

Record No: 40045 Permit No: 75EF
 Farm Name: PINSON, THOMAS
 Well No: 5880
 Operator: KENTUCKY WEST VIRGINIA GAS CO
 Location: 10 FSL x 300 FWL 21-N-85
 County: PIKE Elevation: 905
 THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT 1.35
 THE ACCURACY OF INFORMATION ON THIS DOCUMENT

Thomas Pinson
 Pike County
 Bent Branch
 Commenced: 4-27-49
 Completed: 7-22-49
 Rig: Shepherd
 C. H. Elevation: 905.0'

Formation	From	To
Gravel & Sand	0	7
Sand	7	35
Slate & Shells	35	85
Slate	85	138
Coal	138	140
Slate	140	155
Sand	155	215
Slate & Shells	215	275
Coal	275	277
Slate & Shells	277	320
Sand	320	363
Slate & Shells	363	520
Sand	520	560
Slate & Shells	560	650
Sand	650	665
Slate & Shells	665	685
Sand	685	745
Slate & Shells	745	797
Sand	797	950
Slate break	950	956
Sand	956	1115
Black Lime	1115	1150
Sand	1150	1290
Black Lime	1290	1295
Sand	1295	1505
Slate	1505	1507
Black Lime	1507	1521
Slate	1521	1532
Red Rock	1532	1600
Gritty Lime	1600	1605
Red Rock	1605	1645
Slate & Shells	1645	1670
Black Lime	1670	1680
Sandy Lime	1680	1697
Slate & Shells	1697	1718
Maxon Sand	1718	1836
Black Lime	1836	1960
Big Lime	1960	2175
Keener Sand	2175	2210
Slate & Shells	2210	2440
Black Lime	2440	2455
Slate & Shells	2455	2660
Coffee Shale	2660	2700
Berea Grit	2700	2780

Casing Record		
14"	23'	5'
10"	410'	
8 1/2"	1512'	1512'
6-5/8"	1961'	
2"	3534'	
6-5/8"	Bottom Hole	1961'
6-5/8"x2"	Hookwall	2075'
Water	1040'-1050'	1 B.P.H.
Water	1060'	Hole full
Gas	1734'	
Water	1783'-1790'	
Gas	1986'-1991'	26M
Gas	2121'-2131'	
Cave	2471'-2536'	

Shot 7-25-49 from 2792' to 3546' in Shale with 6600# of Gelatin.

Production before shot - 26M
 Production after shot - 63M

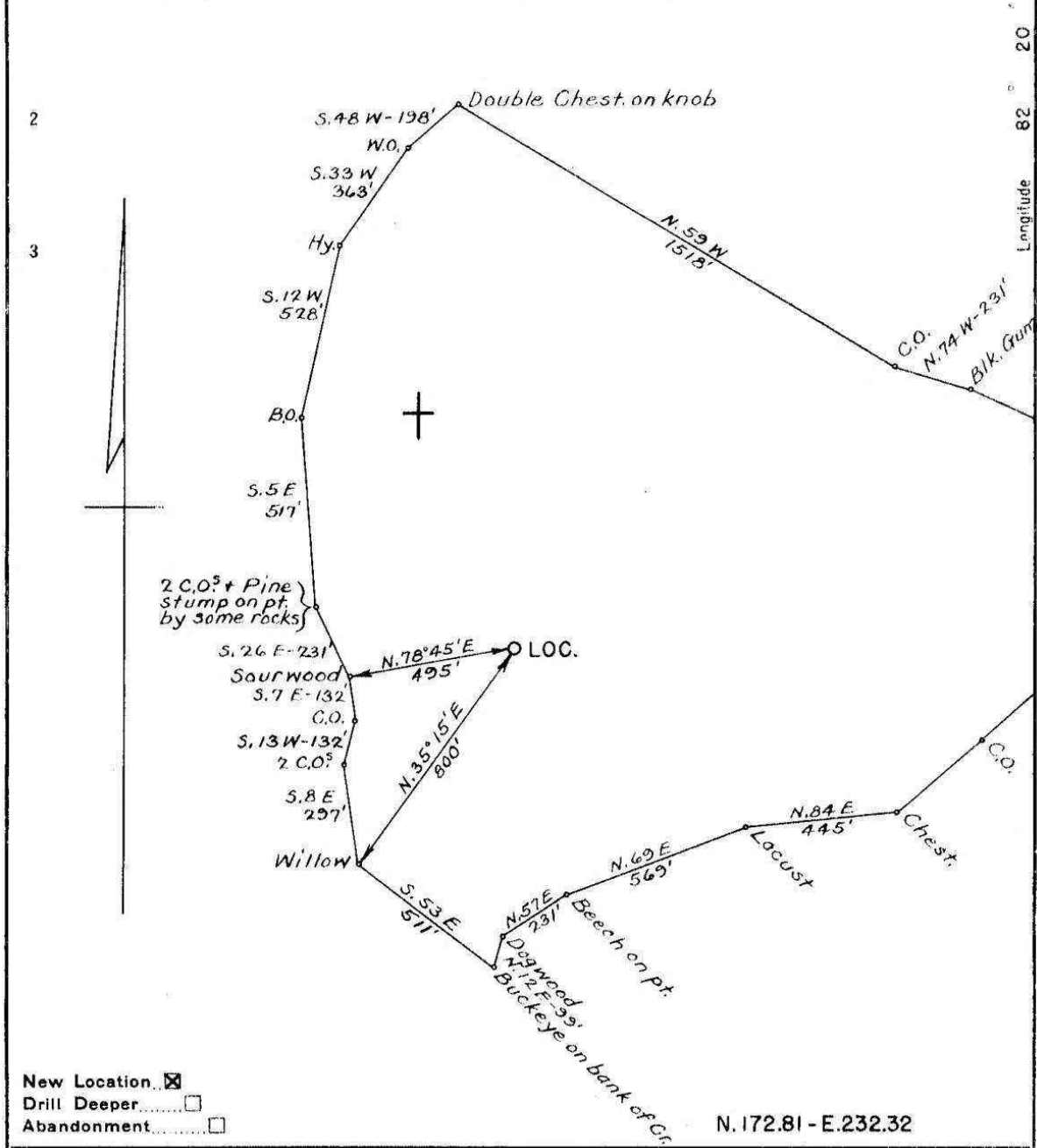
Formation	From	To
Brown Shale	2780	2916
White Shale	2916	3045
Brown Shale	3045	3150
White Shale	3150	3257
Brown Shale	3257	3542
White Slate	3542	3554
Total depth	3554	

**Oil and Gas Well Report: 39974****Oil and Gas Well Information:****Record Number:** 39974**Page Documents (if available):** PDF Documenthttps://kgs.uky.edu/OG_images/0/0/0/3/9/R00039974/R00039974.pdf**Log Download (if available):** n/a**Permit Number:** 120EF**Well Number:** 5903**Quadrangle:** Meta**County:** Pike**Lat, Lon (NAD 83):** 37.60216, -82.415155**KY Carter Coordinates:** 16-N-86 750S, 400W**Surface Elevation:** 1158 ft**Vertical Depth:** 3842 ft**Measured (horizontal) Depth:****Operator:** KENTUCKY WEST VIRGINIA GAS CO**Farm Name:** BEVINS, THOMAS**Completion Date:** 11/17/1949**Total Depth Formation:** Devonian-Ohio Sh**Associated data and reports (if available):****Horizontal Survey:** n/a**Core Report:** n/a**Core Analysis:** n/a**Sample Report:** n/a**Oil Production Data:** n/a**Gas Production Data:** Gas Production Report<https://kgs.uky.edu/kygeode/services/oilgas/prodReport.asp?recNum=39974&prodType=gas>**Pay Report:** Pay Report (<https://kgs.uky.edu/kygeode/services/oilgas/payReport.asp?id=39974>)**Formation Tops Data:** n/a

Record No: 39974 Permit No:
 Farm Name: BEVINS, THOMAS
 Well No: 5903
 Operator: KENTUCKY WEST VIRGINIA GAS CO
 Location: 750 FSL x 400 FWL 16- N-86
 County: PIKE Elevation: 1158
 THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
 THE ACCURACY OF INFORMATION ON THIS DOCUMENT

Latitude 37° 40'

01403



New Location
 Drill Deeper
 Abandonment

Company KENTUCKY WEST VA. GAS CO.
 Address ASHLAND, KY.
 Farm Thomas Bevins
 Tract Acres 64.54 Lease No. 8-406
 Well (Farm) No. 5903 Serial No. 5903
 Elevation (Spirit Level) 1158.0'
 Quadrangle WILLIAMSON S. W.
 County PIKE District JOHNS CREEK
 Engineer C. W. Hunter
 Engineer's Registration No. 1374
 File No. _____ Drawing No. _____
 Date 7-8-49 Scale 1" = 400'

STATE OF KENTUCKY
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 LEXINGTON

WELL LOCATION MAP
 FILE NO. _____

+ 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.

KENTUCKY WEST VIRGINIA GAS CO.
WELL NO. 5903

Thomas Bevins
Pike County
Brushy Fork
Commenced: 8-18-49
Completed: 11-17-49
Rig: Hurt & Sons
C. H. Elevation: 1158.0' Level

N. 172.81 E. 232.32
R. P. 330# - 105 hrs.

Formation	From	To
Soil	0	28
Sand	28	45
Slate	45	56
Sand	56	95
Coal	95	100
Slate	100	116
Sand	116	140
Slate	140	235
Sand	235	256
Slate	256	312
Sandy Lime	312	325
Slate	325	405
Lime Shells	405	426
Slate	426	480
Sand	480	515
Slate	515	535
Sand	535	565
Slate	565	575
Sand	575	610
Coal	610	615
Slate	615	655
Sand	655	700
Slate	700	835
Sand	835	895
Slate	895	970
Sand	970	993
Slate	993	1020
Sand	1020	1085
Slate & Shells	1085	1120
Salt Sand 1st.	1120	1405
Slate	1405	1455
2nd. Salt Sand	1455	1820
Slate	1820	1832
Lime Shells	1832	1841
Slate	1841	1852
Red Rock	1852	1960
Slate & Shells	1960	2032
Maxon Sand	2032	2105
Slate & Shells	2105	2197
Little Lime	2197	2258
Pencil Cove	2258	2260
Big Lime	2260	2428
Keener Sand	2428	2495
Slate & Shells	2495	2650
Weir Shells	2650	2720
Slate & Shells	2720	2945
Coffee Shale	2945	2965

Casing Record		
14"	28'	28'
10"	437'	
8 1/2"	1835'	1835'
6-5/8"	2267'	
2"	3803'	

6-5/8" Bottom Hole 2267'
6-5/8"x2" Hookwell 2425'

Water	30'
Water	95'
Water	615' I. B. P. H.
Water	1505'
Water	1550' Hole Full
Water	2055'
Oil	2185' Show
Oil	2360' Show
Oil&G.	2955' Show
Gas	3625' 15M

Shot 11-30-49 from 3668' to 3828' in
Shale with 6600# of Gelatin.

Production before shot - 0
Production after shot - 61M

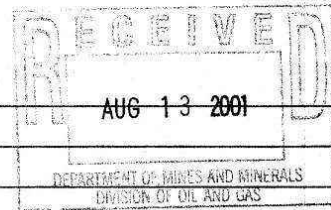
Formation	From	To
Berea Grit	2965	3070
Brown Shale	3070	3160
White Shale	3160	3310
Brown Shale	3310	3420
White Shale	3420	3585
Brown Shale	3585	3828
White Slate	3828	3842
Total depth	3842	

Record No: 39974 Permit No:
Farm Name: BEVINS, THOMAS
Well No: 5903
Operator: KENTUCKY WEST VIRGINIA GAS CO
Location: 750 FSL x 400 FWL 16-N-86
County: PIKE Elevation: 1158
HE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
HE ACCURACY OF INFORMATION ON THIS DOCUMENT

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF MINES & MINERALS
 DIVISION OF OIL AND GAS
 P. O. BOX 2244
 FRANKFORT, KY 40601 PHONE (502) 573-0147



AFFIDAVIT TO TIME AND MANNER
 OF PLUGGING AND FILLING WELL
 AS REQUIRED BY LAW



(TYPE OR PRINT IN INK)

EQUITABLE PRODUCTION
 NAME AND ADDRESS OF LAST OPERATOR _____
 NAME AND ADDRESS OF ORIGINAL OPERATOR _____
 NAME AND ADDRESS OF COAL OPERATOR
KGS Reno 39974
 PERMIT NO. 120EF, ELEVATION 1158, COUNTY PIKE, TOTAL DEPTH 3842
 CARTER COORDINATES 0750 ^{FNE} FSL, 0400 ^{FEL} FWL, SEC. 16, LETTER N, NUMBER 86
 FARM OWNER (LESSOR) THOMAS BLEVINS WELL NUMBER 5903

AFFIDAVIT TO BE MADE IN TRIPPLICATE. ONE COPY TO BE MAILED TO THE DEPARTMENT OF MINES AND MINERALS, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD TO BE MAILED BY REGISTERED MAIL TO EACH COAL OPERATOR NAMED AT THEIR RESPECTIVE ADDRESSES.

WEST VIRGINIA AFFIDAVIT
 STATE OF KENTUCKY,
 COUNTY OF KANAWHA } ss:

0039974004



EQUITABLE PRODUCTION COMPANY, OPERATOR OF THE ABOVE CAPTIONED WELL DOES HEREBY SWEAR THAT THE PLUGGING OF SAID WELL WAS COMPLETED ACCORDING TO INSTRUCTIONS FROM THE OIL AND GAS INSPECTOR AND ACCORDING TO CHAPTER 353 OF THE KENTUCKY REVISED STATUTES ON 7-19-01, IX, RECORD OF WHICH IS LISTED BELOW OR SHOWN ON THE BACK OF THIS FORM.

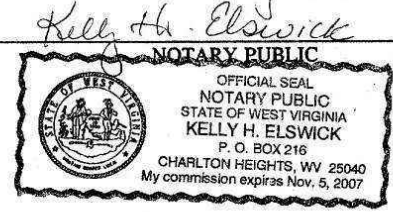
PLUGGED:	FROM	TO	WITH	(PLUG DESCRIPTION)
	2425	2625	40 sks	CLASS A CEMENT
	2425	2225	45 sks	CLASS A CEMENT
	2000	1800	60 sks	CLASS A CEMENT
	1100	1000	46 sks	CLASS A CEMENT
	675	575	46 sks	CLASS A CEMENT
	475	375	58 sks	CLASS A CEMENT
	150	0	117 sks	CLASS A CEMENT

INDICATE BELOW THE SIZE AND INTERVAL OF ALL CASING LEFT IN THE WELL AND IF AND WHERE IT WAS SHOT OFF.
 CASING SIZE 14", INTERVAL 0-28, SHOT OFF AT _____ BOTTOM OF CASING AT 28
 CASING SIZE 10", INTERVAL 0-437, SHOT OFF AT _____ BOTTOM OF CASING AT 437
 CASING SIZE 6 5/8", INTERVAL 0-2267, SHOT OFF AT _____ BOTTOM OF CASING AT 2267
 IF CASING WAS NOT LEFT IN THE WELL, INDICATE THE BORE HOLE SIZE AND INTERVAL. CASING PERF @ 2250, 2000, 1900, 1850, 1400, 1100, 675, 615, 475, 400,
 BORE HOLE SIZE _____ INTERVAL _____ 300, 150, & 100
 BORE HOLE SIZE _____ INTERVAL _____
 STATE WHETHER OR NOT OTHER STEEL OR JUNK WAS LEFT IN THE WELL AND DESCRIBE: PACKER @ 2425

Rodney Osborne RODNEY OSBORNE
 PRESIDENT R & J WELL SERVICE INC
 (OPTIONAL) SIGNATURE OF CONTRACTOR RESPONSIBLE FOR ABOVE PLUGGING TITLE
Kelly H. Elswick REX CECIL RAY PR & DIVESTITURE SPECIALISTS
 (REQUIRED) SIGNATURE OF OPERATOR RESPONSIBLE FOR ABOVE PLUGGING TITLE

SWORN TO AND SUBSCRIBED BEFORE ME THIS 9th DAY OF August, 2001

MY COMMISSION EXPIRES: Nov. 5, 2007



ALL BLANKS MUST BE COMPLETED. INCOMPLETE AFFIDAVITS WILL BE REJECTED.
 FORM ED-38 (REV. 2-99)

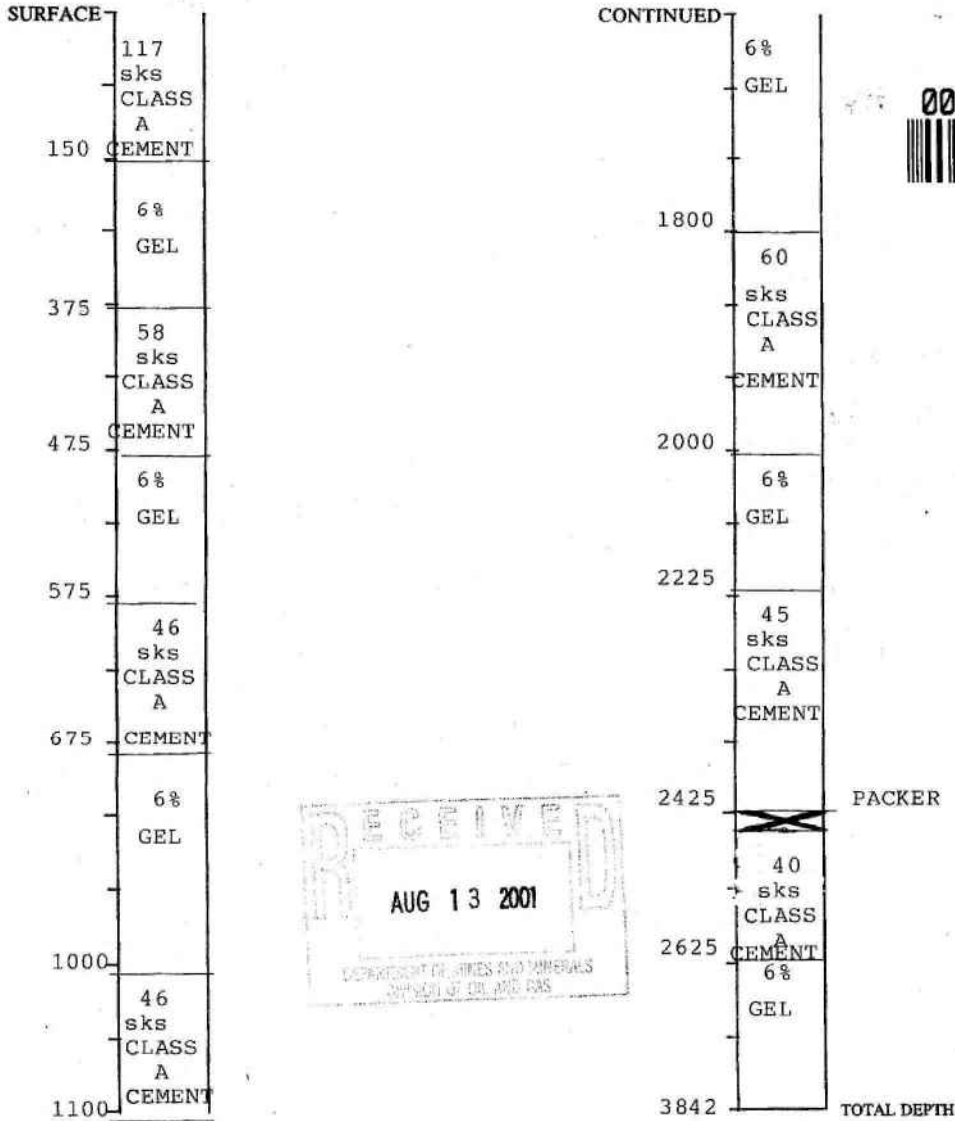
OVER

CEMENT TABLE

HOLE SIZE	2"	3"	4"	5"	6 1/2"	8"	8 1/2"	8 3/4"	10"	12"	16"
NO. FT. FILLED PER SACK OF CEMENT*	45'	20'	11'	7'	4'	2 3/4'	2 1/2'	2 1/3'	2'	1'	1/2'

* 1 CUBIC FOOT PER SACK

GRAPHICALLY SHOW BELOW THE LOCATION AND INTERVAL OF ALL PLUGS INSTALLED.



IF THE WELL IS TO BE LEFT AS A DOMESTIC WATER WELL, PLUG ACCORDING TO THE INSPECTORS INSTRUCTIONS, COMPLETE THIS FORM ON BOTH SIDES AND HAVE THE FOLLOWING AFFIDAVIT SIGNED BY THE REAL ESTATE OWNER.

AFFIDAVIT

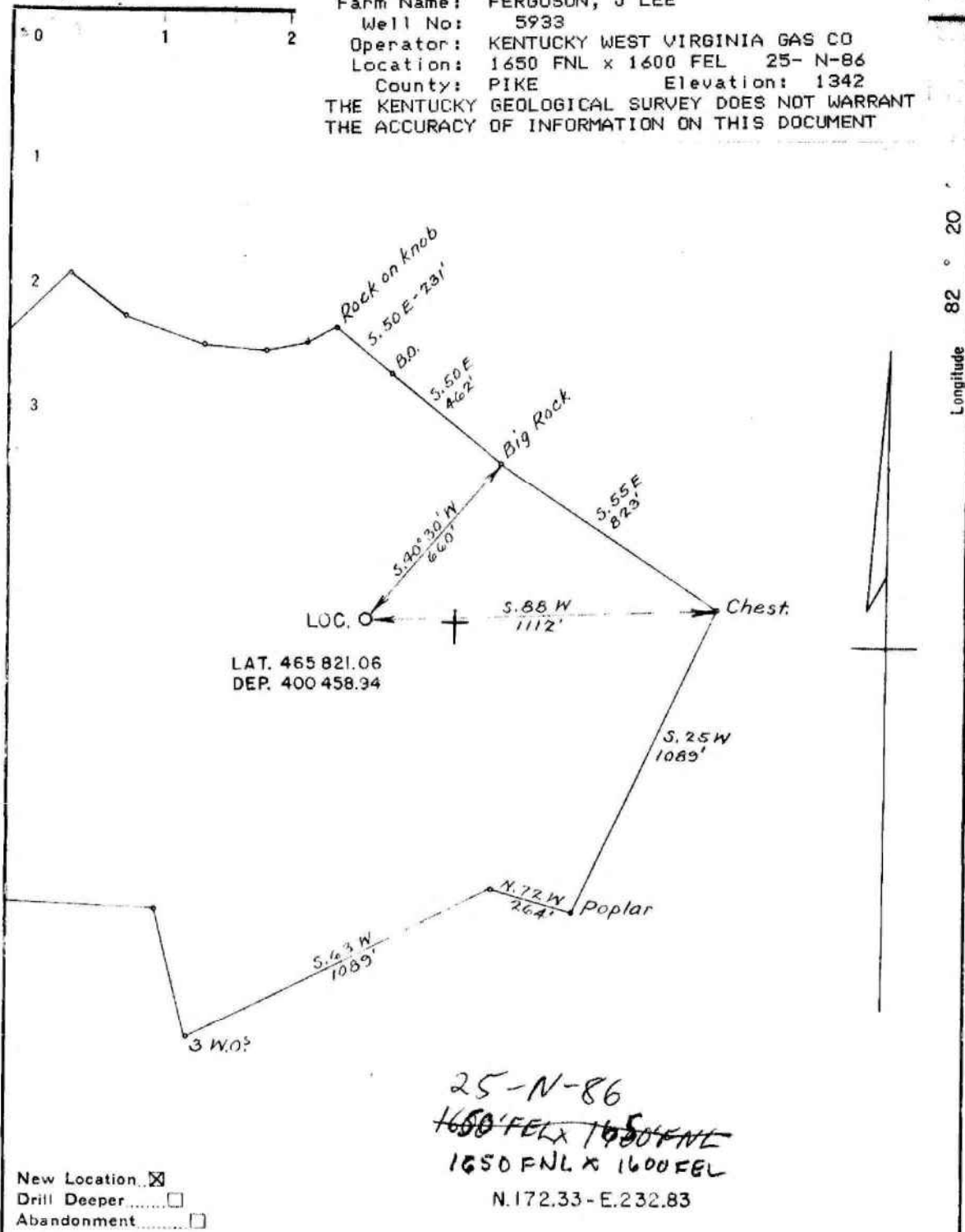
I, _____, THE OWNER OF THE REAL ESTATE ON WHICH THIS WELL WAS DRILLED, DESIRE THAT THE WELL BE LEFT OPEN FROM THE FRESH WATER ZONE TO THE SURFACE FOR USE AS A WATER WELL AND DO HEREBY ACCEPT THE FULL RESPONSIBILITY FOR SAID WATER WELL. THE OIL OPERATOR REMAINS RESPONSIBLE FOR ALL PLUGS BELOW THE FRESH WATER ZONE

SIGNATURE OF OWNER OR HIS AGENT

DATE

**Oil and Gas Well Report: 40114****Oil and Gas Well Information:****Record Number:** 40114**Page Documents (if available):** PDF Documenthttps://kgs.uky.edu/OG_images/0/0/0/4/0/R00040114/R00040114.pdf**Log Download (if available):** n/a**Permit Number:** 263EF**Well Number:** 5933**Quadrangle:** Meta**County:** Pike**Lat, Lon (NAD 83):** 37.595569, -82.40539**KY Carter Coordinates:** 25-N-86 1650N, 1600E**Surface Elevation:** 1342 ft**Vertical Depth:** 4048 ft**Measured (horizontal) Depth:****Operator:** KENTUCKY WEST VIRGINIA GAS CO**Farm Name:** FERGUSON, J LEE**Completion Date:** 9/2/1950**Total Depth Formation:** Devonian-Ohio Sh**Associated data and reports (if available):****Horizontal Survey:** n/a**Core Report:** n/a**Core Analysis:** n/a**Sample Report:** n/a**Oil Production Data:** n/a**Gas Production Data:** Gas Production Report<https://kgs.uky.edu/kygeode/services/oilgas/prodReport.asp?recNum=40114&prodType=gas>**Pay Report:** Pay Report (<https://kgs.uky.edu/kygeode/services/oilgas/payReport.asp?id=40114>)**Formation Tops Data:** Tops Report (<https://kgs.uky.edu/kygeode/services/oilgas/topsReport.asp?recNum=40114>)

Record No: 40114 Permit No:
 Farm Name: FERGUSON, J LEE
 Well No: 5933
 Operator: KENTUCKY WEST VIRGINIA GAS CO
 Location: 1650 FNL x 1600 FEL 25- N-86
 County: PIKE Elevation: 1342
 THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
 THE ACCURACY OF INFORMATION ON THIS DOCUMENT



Company KENTUCKY WEST VA. GAS CO.
 Address ASHLAND, KY.
 Farm J. Lee Ferguson
 Tract N-2372 Acres 240 Lease No. 1-1018
 Well (Farm) No. _____ Serial No. 5933
 Elevation (Spirit Level) 1342.0'
 Quadrangle WILLIAMSON S.W. (Meta)
 County PIKE District JOHNS CREEK
 Engineer C. H. Hunter
 Engineer's Registration No. 1374
 File No. _____ Drawing No. _____
 Date 12-13-49 Scale 1" = 400'

STATE OF KENTUCKY
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 LEXINGTON

WELL LOCATION MAP
 FILE NO. _____

+ 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.

SERIAL NO.

5933

NAME

J. Lee Ferguson

25-N-86
Pike Co.

N. 172.33

E. 232.83

CASING AND TUBING

PACKERS

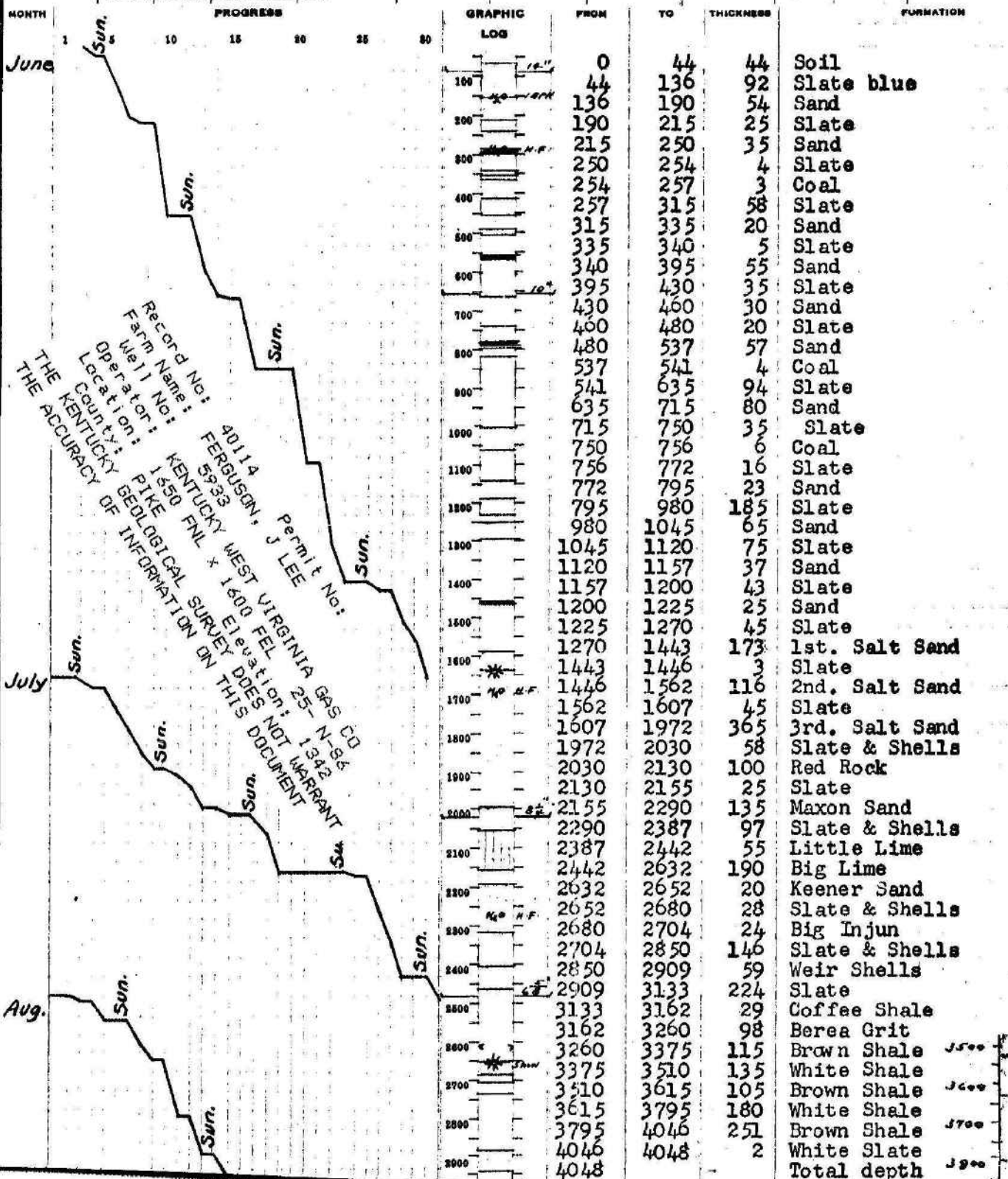
GAS, WATER AND OIL RECORD

SIZE	PUT IN WELL	FULLED	CASING FT.	SIZE	MAKE	SET AT	LIQUID OR GAS	DEPTH	FT. RAISED IN HOLE	VOLUME
14"	51'	51'		6-5/8"	Bottom Hole	2450'	Water	134'		1 B.P.H.
10"	629'			6-5/8"x2"	Hookwall	2588'	Water	265'		Hole full
8 1/2"	1992'	1656'					Gas	1617'		
6-5/8"	2450'						Water	1670'		Hole full
2"	4039'						Water	2250'		Hole full.
							Gas	2634'		Show
							Gas	3225'		Show
							Gas	3800'		Show

RECORD OF SHOT

DATE SHOT	FROM	TO	SAND	TYPE OF EXPLOSIVE	QUANTITY	PRODUCTION BEFORE SHOT	PRODUCTION AFTER SHOT
9-6-50	3280'	4048'	Shale	Gelatin	6600#	231M	273M

Gelatin: Hercules.



Record No: 40114 Permit No:
 Farm Name: FERGUSON, J LEE
 Well No: 5933
 Operator: KENTUCKY WEST VIRGINIA GAS CO
 Location: 1650 FNL x 1600 FEL 25- N-86
 County: PIKE Elevation: 1342
 THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
 THE ACCURACY OF INFORMATION ON THIS DOCUMENT

N. 172.33 W. 232.83

J. Lee Ferguson
 Pike County
 Brushy Fork
 Commenced: 6-3-50
 Completed: 9-2-50
 Rig: Hurt & Miller
 C. H. Elevation: 1342.0' Level

Formation	From	To
Soil	0	44
Slate blue	44	136
Sand	136	190
Slate	190	215
Sand	215	250
Slate	250	254
Coal	254	257
Slate	257	315
Sand	315	335
Slate	335	340
Sand	340	395
Slate	395	430
Sand	430	460
Slate	460	480
Sand	480	537
Coal	537	541
Slate	541	635
Sand	635	715
Slate	715	750
Coal	750	756
Slate	756	772
Sand	772	795
Slate	795	980
Sand	980	1045
Slate	1045	1120
Sand	1120	1157
Slate	1157	1200
Sand	1200	1225
Slate	1225	1270
1st. Salt Sand	1270	1443
Slate	1443	1446
2nd. Slat Sand	1446	1562
Slate	1562	1607
3rd. Salt Sand	1607	1972
Slate & Shells	1972	2030
Red Rock	2030	2130
Slate	2130	2155
Maxon Sand	2155	2290
Slate & Shells	2290	2387
Little Lime	2387	2442
Big Lime	2442	2632
Keener Sand	2632	2652
Slate & Shells	2652	2680
Big Injun	2680	2704
Slate & Shells	2704	2850

Casing Record		
14"	51'	51'
10"	629'	
8 1/2"	1992'	1656'
6-5/8"	2450'	
2"	4039'	
6-5/8"	Bottom Hole	2450'
6-5/8"x2"	Hookwall	2588'
Water	134'	1 B.P.H.
Water	265'	Hole full
Gas	1617'	
Water	1670'	Hole full
Water	2250'	Hole full
Gas	2634'	Show
Gas	3225'	Show
Gas	3800'	Show

9-6-50 Shot from 3280' to 4048'
 in Shale with 6600# of Gelatin.

Production before shot = 231M
 Production after shot = 273M

Formation	From	To
Weir Shells	2850	2909
Slate	2909	3133
Coffee Shale	3133	3163
Berea Grit	3163	3260
Brown Shale	3260	3375
White Shale	3375	3510
Brown Shale	3510	3615
White Shale	3615	3795
Brown Shale	3795	4046
White Slate	4046	4048
Total depth	4048	

KENTUCKY GEOLOGICAL SURVEY WELL TICKET

TIGHT FORMATION CARD

REFERENCE NO.										
COUNTY CODE		PERMIT NO.							YEAR REPORTED	
2	3	4	5	6	7	8	9	10	11	
1	9	5								54

Duplicate columns 2-11 on each card coded on this page

CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	DETERMINED	PERMEABILITY (md)	SOURCE	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PAY NO.
	TOP	BOTTOM	CODE	NAME								
7	1270	1972	328	SALT					NONE			

CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	DETERMINED	PERMEABILITY (md)	SOURCE	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PAY NO.
	TOP	BOTTOM	CODE	NAME								
7	2155	2290	337	MAXN					NONE			

CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	DETERMINED	PERMEABILITY (md)	SOURCE	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PAY NO.
	TOP	BOTTOM	CODE	NAME								
7	2942	2631	338	CL					NONE			

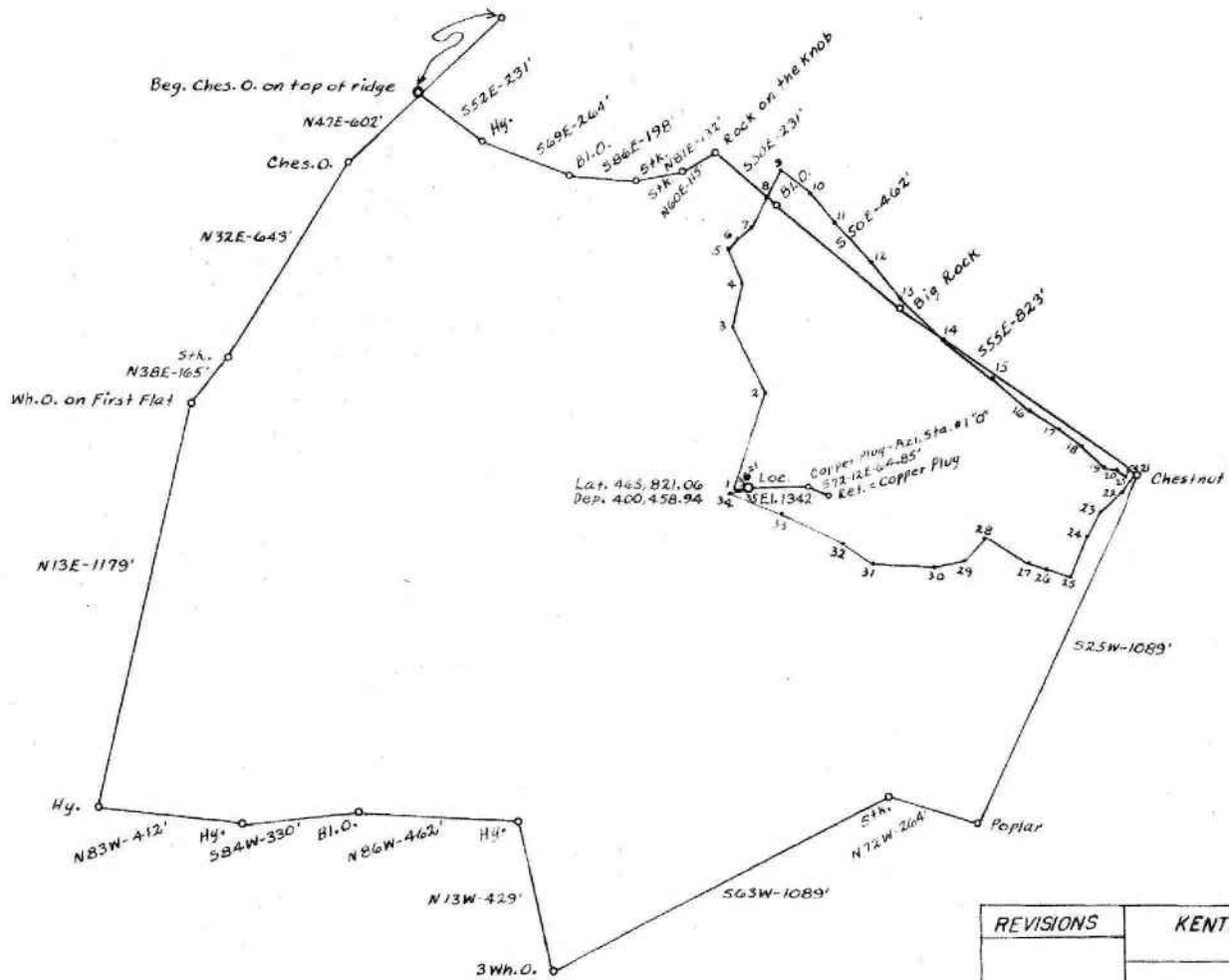
CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	DETERMINED	PERMEABILITY (md)	SOURCE	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PAY NO.
	TOP	BOTTOM	CODE	NAME								
7	2680	2704	338	IMVN					NONE			

CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	DETERMINED	PERMEABILITY (md)	SOURCE	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PAY NO.
	TOP	BOTTOM	CODE	NAME								
7	3168	3266	339	BRFA					NONE			

Record No: 40114 Permit No:
 Farm Name: FERGUSON, J LEE
 Well No: 5933
 Operator: KENTUCKY WEST VIRGINIA GAS CO
 Location: 1650 FNL x 1600 FEL 25- N-86
 County: PIKE Elevation: 1342

THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT THE ACCURACY OF INFORMATION ON THIS DOCUMENT

T	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PAY NO.																																																															
				14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76



0040114005


REVISIONS	KENTUCKY-WEST VA GAS COMPANY ASHLAND, KY.	
	GEOLOGICAL DEPT.	
	I-1018 J. LEE FERGUSON 240A.	
Date: 12-14-49		FILE NO.
Scale: 1"=400'	Williamson S.W.	E-925
Drawn: F.M.	N. 172	
Traced: E.W.	E. 233	
Checked:	Pike Co.	
Approved: D.M.Y.		

26052

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF MINES & MINERALS
 DIVISION OF OIL AND GAS
 P. O. BOX 2244
 FRANKFORT, KY 40601 PHONE (502) 573-0147



AFFIDAVIT TO TIME AND MANNER
 OF PLUGGING AND FILLING WELL
 AS REQUIRED BY LAW

(TYPE OR PRINT IN INK)

Equitable Production - East Region, 748 North Lake Drive, Prestonsburg, Ky. 41653
 NAME AND ADDRESS OF LAST OPERATOR

SAME AS ABOVE
 NAME AND ADDRESS OF ORIGINAL OPERATOR

NAME AND ADDRESS OF COAL OPERATOR

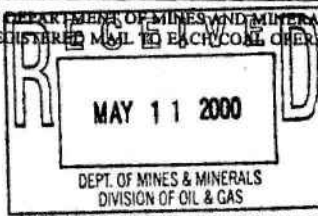
PERMIT NO. 263EF, ELEVATION 1342', COUNTY Pike, TOTAL DEPTH 4048'
 CARTER COORDINATES 1650' ^{FNL} 1600' ^{FEL} SEC. 25, LETTER N, NUMBER 8G

FARM OWNER (LESSOR) J. Lee Ferguson WELL NUMBER 5935

AFFIDAVIT TO BE MADE IN TRIPPLICATE, ONE COPY TO BE MAILED TO THE DEPARTMENT OF MINES AND MINERALS, ONE COPY TO BE
 RETAINED BY THE WELL OPERATOR AND THE THIRD TO BE MAILED BY REGISTERED MAIL TO EACH COAL OPERATOR NAMED AT THEIR
 RESPECTIVE ADDRESSES.

STATE OF KENTUCKY,
 COUNTY OF Pike } ss:

AFFIDAVIT



Equitable Production OPERATOR OF THE ABOVE CAPTIONED WELL DOES
 HEREBY SWEAR THAT THE PLUGGING OF SAID WELL WAS COMPLETED ACCORDING TO INSTRUCTIONS FROM THE OIL AND GAS
 INSPECTOR AND ACCORDING TO CHAPTER 353 OF THE KENTUCKY REVISED STATUTES ON May 4, 2000
 RECORD OF WHICH IS LISTED BELOW OR SHOWN ON THE BACK OF THIS FORM.

PLUGGED:	FROM	TO	WITH	(PLUG DESCRIPTION)
	<u>2568'</u>	<u>2598'</u>	<u>5 cu. ft. Pea Gravel</u>	
	<u>2598'</u>	<u>2538'</u>	<u>3 cu. ft. cement</u>	
	<u>2492'</u>	<u>2392'</u>	<u>34.4 cu. ft. cement</u>	
	<u>2205'</u>	<u>2105'</u>	<u>40.1 cu. ft. cement</u>	
	<u>1320'</u>	<u>1220'</u>	<u>62.7 cu. ft. cement</u>	
	<u>350'</u>	<u>surface</u>	<u>375 cu. ft. cement</u>	

INDICATE BELOW THE SIZE AND INTERVAL OF ALL CASING LEFT IN THE WELL AND IF AND WHERE IT WAS SHOT OFF.

CASING SIZE 10", INTERVAL 0-629', SHOT OFF AT _____ BOTTOM OF CASING AT 629'
 CASING SIZE 8 1/4", INTERVAL 0-1992', ^{CUT} SHOT OFF AT 1656' BOTTOM OF CASING AT 1992'
 CASING SIZE 7", INTERVAL 0-2450', SHOT OFF AT _____ BOTTOM OF CASING AT 2450'

IF CASING WAS NOT LEFT IN THE WELL, INDICATE THE BORE HOLE SIZE AND INTERVAL. 7" casing perforated @ 2205', 1320',
NOTE: hole was filled w/ grout water below plugs 350', 300', 250', 200', 150', 100', 50'
 BORE HOLE SIZE _____ INTERVAL _____ total volume ~ 268 Bbl.

BORE HOLE SIZE _____ INTERVAL _____

STATE WHETHER OR NOT OTHER STEEL OR JUNK WAS LEFT IN THE WELL AND DESCRIBE: 2" x 6" O.H. pecker @ 2585';
2" log from 2568' to 4035'

(OPTIONAL) SIGNATURE OF CONTRACTOR RESPONSIBLE FOR ABOVE PLUGGING _____ TITLE _____
Robert J. Laughner (Print) Laughner Senior Production Engineer

(REQUIRED) SIGNATURE OF OPERATOR RESPONSIBLE FOR ABOVE PLUGGING _____ TITLE _____

SWORN TO AND SUBSCRIBED BEFORE ME THIS 8th DAY OF May, 2000

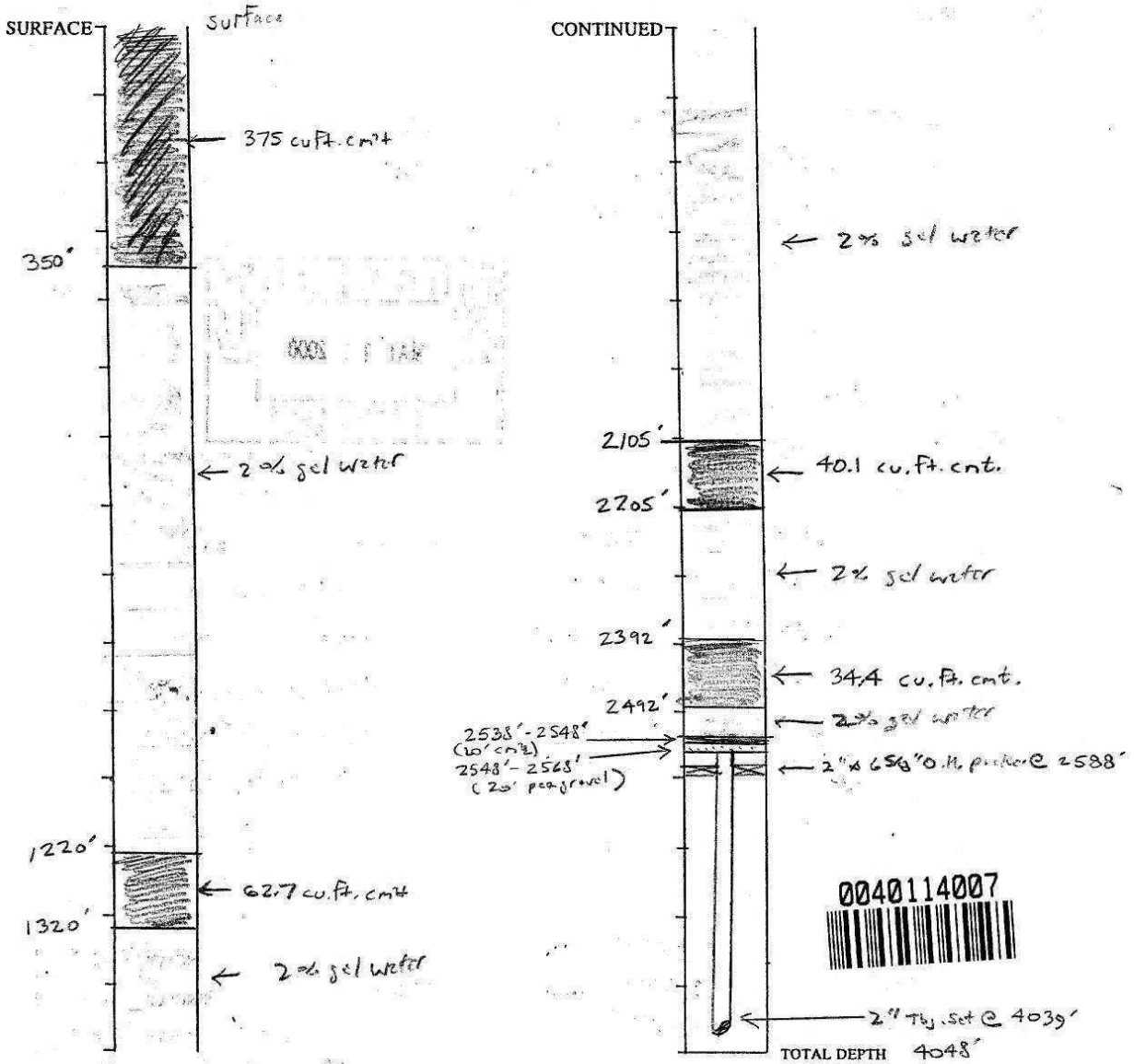
MY COMMISSION EXPIRES: September 27, 2003
 _____ NOTARY PUBLIC

CEMENT TABLE

HOLE SIZE	2"	3"	4"	5"	6 1/2"	8"	8 1/2"	8 3/4"	10"	12"	16"
NO. FT. FILLED PER SACK OF CEMENT*	45'	20'	11'	7'	4'	2 3/4'	2 1/2'	2 1/3'	2'	1'	1/2'

* 1 CUBIC FOOT PER SACK

GRAPHICALLY SHOW BELOW THE LOCATION AND INTERVAL OF ALL PLUGS INSTALLED.



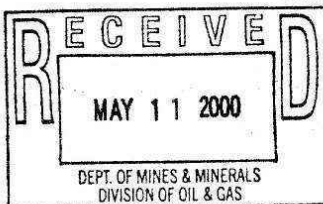
IF THE WELL IS TO BE LEFT AS A DOMESTIC WATER WELL, PLUG ACCORDING TO THE INSPECTORS INSTRUCTIONS, COMPLETE THIS FORM ON BOTH SIDES AND HAVE THE FOLLOWING AFFIDAVIT SIGNED BY THE REAL ESTATE OWNER.

AFFIDAVIT

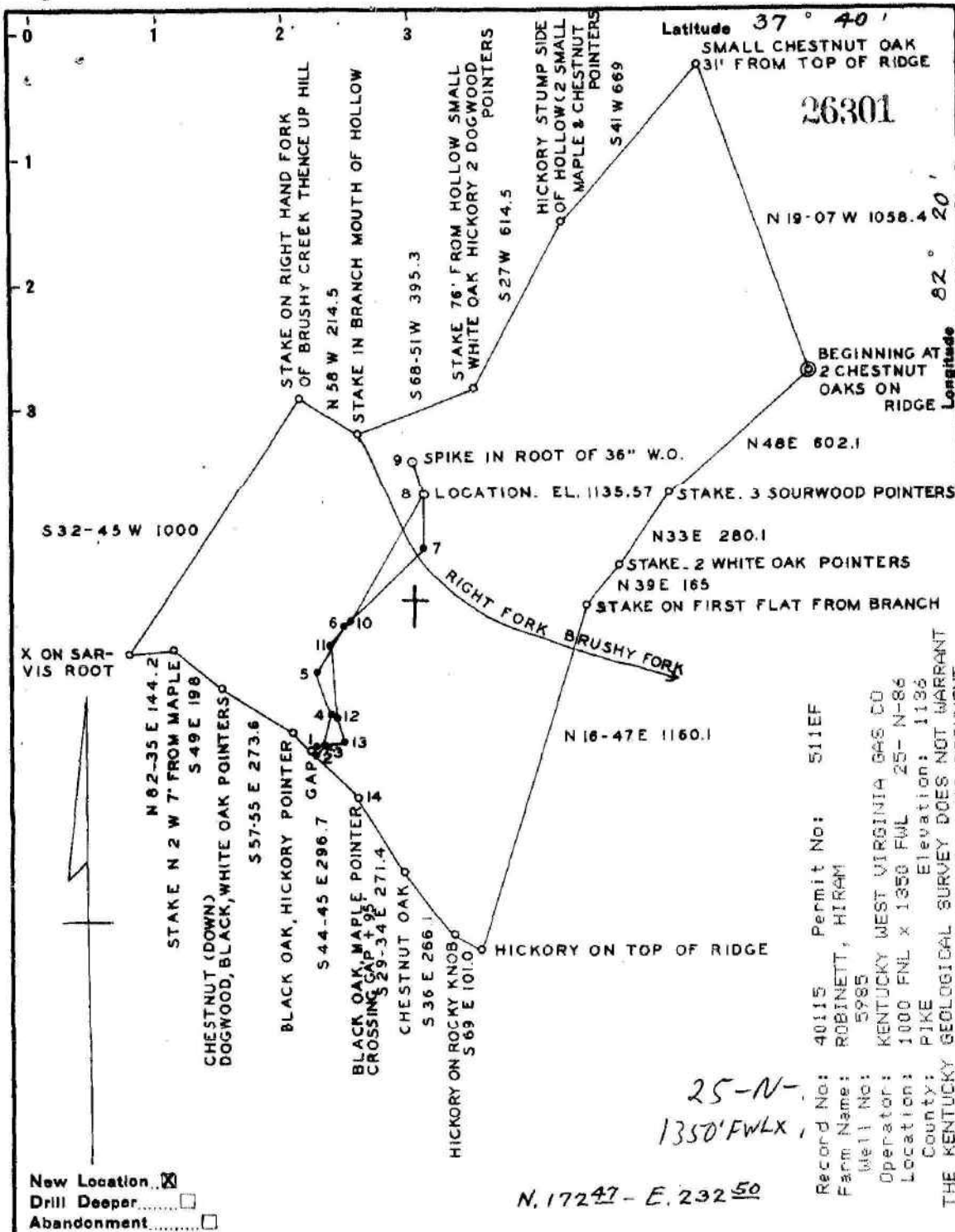
I, _____ THE OWNER OF THE REAL ESTATE ON WHICH THIS WELL WAS DRILLED, DESIRE THAT THE WELL BE LEFT OPEN FROM THE FRESH WATER ZONE TO THE SURFACE FOR USE AS A WATER WELL AND DO HEREBY ACCEPT THE FULL RESPONSIBILITY FOR SAID WATER WELL. THE OIL OPERATOR REMAINS RESPONSIBLE FOR ALL PLUGS BELOW THE FRESH WATER ZONE

SIGNATURE OF OWNER OR HIS AGENT

DATE



**Oil and Gas Well Report: 40115****Oil and Gas Well Information:****Record Number:** 40115**Page Documents (if available):** PDF Documenthttps://kgs.uky.edu/OG_images/0/0/0/4/0/R00040115/R00040115.pdf**Log Download (if available):** n/a**Permit Number:** 511EF**Well Number:** 5985**Quadrangle:** Meta**County:** Pike**Lat, Lon (NAD 83):** 37.597354, -82.411877**KY Carter Coordinates:** 25-N-86 1000N, 1350W**Surface Elevation:** 1136 ft**Vertical Depth:** 3838 ft**Measured (horizontal) Depth:****Operator:** KENTUCKY WEST VIRGINIA GAS CO**Farm Name:** ROBINETT, HIRAM**Completion Date:** 6/20/1951**Total Depth Formation:** Devonian-Ohio Sh**Associated data and reports (if available):****Horizontal Survey:** n/a**Core Report:** n/a**Core Analysis:** n/a**Sample Report:** n/a**Oil Production Data:** n/a**Gas Production Data:** Gas Production Report<https://kgs.uky.edu/kygeode/services/oilgas/prodReport.asp?recNum=40115&prodType=gas>**Pay Report:** Pay Report (<https://kgs.uky.edu/kygeode/services/oilgas/payReport.asp?id=40115>)**Formation Tops Data:** n/a



Record No: 40115 Permit No: 511EF
 Farm Name: ROBINETT, HIRAM
 Well No: 5985
 Operator: KENTUCKY WEST VIRGINIA GAS CO
 Location: 1000 FNL x 1350 FWL 25- N-86
 County: PIKE Elevation: 1136
 THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT
 THE ACCURACY OF INFORMATION ON THIS DOCUMENT

25-N-
1350'FWLx

N. 17247 - E. 23250

New Location
 Drill Deeper
 Abandonment

Company KENTUCKY WEST VIRGINIA GAS CO.
 Address ASHLAND, KY.
 Farm HIRAM ROBINETT
 Tract _____ Acres 54.14 Lease No. 8-408
 Well (Farm) No. _____ Serial No. 5985
 Elevation (Spirit Level) 1135.57
 Quadrangle WILLIAMSON S.W. (Mets 79)
 County PIKE District JOHNS CREEK
 Engineer C.P. Hunter
 Engineer's Registration No. 1374
 File No. _____ Drawing No. _____
 Date 12-6-50 Scale 1" = 400'

STATE OF KENTUCKY
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 LEXINGTON

WELL LOCATION MAP
 FILE NO. _____

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

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

Record No: 40115 Permit No: 511EF
 Farm Name: ROBINETT, HIRAM
 Well No: 5985
 Operator: KENTUCKY WEST VIRGINIA GAS CO
 Location: 1000 FNL x 1350 FWL 25-N-86
 County: PIKE Elevation: 1136
 THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT **E. 32.50**
 THE ACCURACY OF INFORMATION ON THIS DOCUMENT

Hiram Robinett
 Pike County
 Brushy Fork
 Commenced: 2-6-51
 Completed: 6-20-51
 Rigs: Hurt & Sons
 C. H. Elevation: 1135.57'

25-N-86

Formation	From	To
Soil	0	27
Sand	27	58
Slate blue	58	75
Sand	75	112
Slate	112	118
Sand	118	160
Coal	160	163
Sand	163	190
Slate	190	250
Sand	250	290
Slate	290	387
Coal	387	390
Slate	390	402
Sand	402	425
Slate	425	440
Sand	440	492
Slate	492	525
Sand	525	550
Slate	550	560
Coal	560	565
Slate	565	575
Sand	575	638
Slate	638	775
Sand	775	840
Slate	840	980
Sand	980	1085
1st. Salt Sand	1085	1190
Slate	1190	1194
2nd. Salt Sand	1194	1380
Slate	1380	1425
Salt Sand	1425	1495
Slate	1495	1505
Sand	1505	1780
Lime Shells	1780	1790
Slate	1790	1798
Red Rock	1798	1812
Lime Shells	1812	1835
Slate & Shells	1835	1895
Red Rock	1895	1910
Slate & Shells	1910	1935
Sand	1935	2080
Lime	2080	2088
Slate & Shells	2088	2180
Black Lime	2180	2215
White Lime	2215	2400
Keener Sand	2400	2420
Slate & Shells	2420	2925
Coffee Shale	2925	2950
Berea Grift	2950	3065

Casing Record		
14"	27'	27'
10"	200'	
8 1/2"	1783'	
6-5/8"	2239'	
2"	3809'	
6-5/8"	Bottom Hole	2239'
6-5/8"x2"	Hookwall	2358'
Water	70'	Hole full
Water	450'	2 B. P. H.
Water	1465'	Hole full
Gas	2028'-2030'	
Water	2030'	1/2 B.P.H.
Water	2045'-2050'	Hole full
Gas	2300'-2305'	Show
Gas	2390'-2400'	Show
Gas	3725'-3735'	26'

Formation	From	To
Brown Shale	3065	3145
Light Shale	3145	3300
Brown Shale	3300	3405
Light Shale	3405	3525
Brown Shale	3525	3828
White Slate	3828	3838
Total depth		3838

Shot 6-25-51 from 3108 to 3838 in Shale with 6400# of Gelatin.

Production before shot = 26#
 Production after shot = 133#

KENTUCKY GEOLOGICAL SURVEY WELL TICKET

TIGHT FORMATION CARD

REFERENCE NO.										
COUNTY CODE				PERMIT NO.				YEAR REPORTED		
2	3	4	5	6	7	8	9	10	11	12
1	9	5						5	1	

← Duplicate columns 2-11 on each card coded on this page

918

CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	PERMEABILITY (md)	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PRY NO.
	TOP	BOTTOM	CODE	NAME						
7	1025	1495	322	SALT			NONE			

CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	PERMEABILITY (md)	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PRY NO.
	TOP	BOTTOM	CODE	NAME						
7	2215	2400	333	RIGL			NONE			

CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	PERMEABILITY (md)	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PRY NO.
	TOP	BOTTOM	CODE	NAME						
7	2950	3065	339	BREA			NONE			

CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	PERMEABILITY (md)	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PRY NO.
	TOP	BOTTOM	CODE	NAME						
7										

CARD NO.	INTERVAL		FORMATION		NATURAL (UNTREATED) OPEN FLOW IN MCF	PERMEABILITY (md)	TREATMENT (ACID, SHOT, FRAC, NONE)	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PRY NO.
	TOP	BOTTOM	CODE	NAME						

Record No: 40115 Permit No: 511EF

Farm Name: ROBINETT, HIRAM

Well No: 5985

Operator: KENTUCKY WEST VIRGINIA GAS CO

Location: 1000 FNL x 1350 FWL 25- N-86

County: PIKE Elevation: 1136

THE KENTUCKY GEOLOGICAL SURVEY DOES NOT WARRANT THE ACCURACY OF INFORMATION ON THIS DOCUMENT

44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

CARD NO.	INITIAL (AFTER TREATMENT) OPEN FLOW IN MCF	COMMENTS	PRY NO.																																	
				44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76

COMMONWEALTH OF KENTUCKY
 DEPARTMENT OF MINES & MINERALS
 DIVISION OF OIL AND GAS
 P. O. BOX 2244
 FRANKFORT, KY 40601 PHONE (502) 573-0147



AFFIDAVIT TO TIME AND MANNER
 OF PLUGGING AND FILLING WELL
 AS REQUIRED BY LAW

(TYPE OR PRINT IN INK)

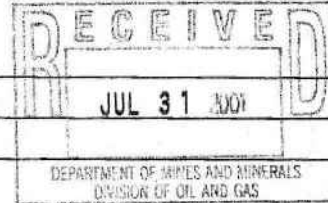
EQUITABLE PRODUCTION COMPANY
 (KY, W. VIRGINIA GAS)

NAME AND ADDRESS OF LAST OPERATOR

KY, W. VIRGINIA GAS

NAME AND ADDRESS OF ORIGINAL OPERATOR

NAME AND ADDRESS OF COAL OPERATOR



PERMIT NO. 511EF, ELEVATION 1135.57, COUNTY PIKE, TOTAL DEPTH 3838

CARTER COORDINATES 1000 ^{FNL} 1350 ^{FSL} FWL, SEC. 25, LETTER N, NUMBER 86

FARM OWNER (LESSOR) HIRAM ROBINETT WELL NUMBER 5985

AFFIDAVIT TO BE MADE IN TRIPPLICATE, ONE COPY TO BE MAILED TO THE DEPARTMENT OF MINES AND MINERALS, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD TO BE MAILED BY REGISTERED MAIL TO EACH COAL OPERATOR NAMED AT THEIR RESPECTIVE ADDRESSES.

West Virginia AFFIDAVIT
 STATE OF ~~KENTUCKY~~
 COUNTY OF Kanawha } ss:



Equitable Production Co. (KY-WV), OPERATOR OF THE ABOVE CAPTIONED WELL DOES HEREBY SWEAR THAT THE PLUGGING OF SAID WELL WAS COMPLETED ACCORDING TO INSTRUCTIONS FROM THE OIL AND GAS INSPECTOR AND ACCORDING TO CHAPTER 353 OF THE KENTUCKY REVISED STATUTES ON 7-16-2001 ~~XXX~~ RECORD OF WHICH IS LISTED BELOW OR SHOWN ON THE BACK OF THIS FORM.

(PLUG DESCRIPTION)		
PLUGGED:	FROM <u>2450</u> TO <u>3550</u>	WITH <u>40</u> sks CLASS A CEMENT INSIDE TUBING
	FROM <u>2350</u> TO <u>2150</u>	WITH <u>40</u> sks CLASS A CEMENT
	FROM <u>1825</u> TO <u>1725</u>	WITH <u>38</u> sks CLASS A CEMENT
	FROM <u>1465</u> TO <u>1365</u>	WITH <u>46</u> sks CLASS A CEMENT
	FROM <u>600</u> TO <u>350</u>	WITH <u>115</u> sks CLASS A CEMENT
	FROM <u>220</u> TO <u>0</u>	WITH <u>171</u> sks CLASS A CEMENT
	FROM _____ TO _____	WITH _____
	FROM _____ TO _____	WITH _____

INDICATE BELOW THE SIZE AND INTERVAL OF ALL CASING LEFT IN THE WELL AND IF AND WHERE IT WAS SHOT OFF.

CASING SIZE 14", INTERVAL 0-27, SHOT OFF AT _____ BOTTOM OF CASING AT 27

CASING SIZE 10", INTERVAL 0-200, SHOT OFF AT _____ BOTTOM OF CASING AT 200

CASING SIZE 7", INTERVAL 0-2239, SHOT OFF AT _____ BOTTOM OF CASING AT 2239

IF CASING WAS NOT LEFT IN THE WELL, INDICATE THE BORE HOLE SIZE AND INTERVAL. CASING PERF @ 2080, 1900, 1800, 1680, 1465, 1380, 1200, 1000, 800, 700, 600, 450, 390, 250, 165, 100, & 70

BORE HOLE SIZE _____ INTERVAL _____

BORE HOLE SIZE _____ INTERVAL _____

STATE WHETHER OR NOT OTHER STEEL OR JUNK WAS LEFT IN THE WELL AND DESCRIBE: PACKER @ 2425

Rodney Osborne
 RODNEY OSBORNE
 R&J WELL SERVICE INC PRESIDENT
 (OPTIONAL) SIGNATURE OF CONTRACTOR RESPONSIBLE FOR ABOVE PLUGGING TITLE

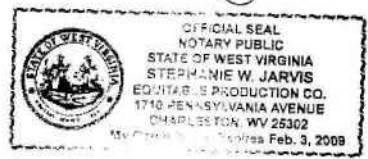
James E. Cochran
 JAMES E. COCHRAN SR. V.P. - OPERATIONS
 (REQUIRED) SIGNATURE OF OPERATOR RESPONSIBLE FOR ABOVE PLUGGING TITLE

SWORN TO AND SUBSCRIBED BEFORE ME THIS 23 DAY OF July, 19 2001

Stephanie W. Jarvis
 NOTARY PUBLIC

MY COMMISSION EXPIRES: February 3, 2009

ALL BLANKS MUST BE COMPLETED. INCOMPLETE AFFIDAVITS WILL BE REJECTED.
 FORM ED-38 (REV. 2-99)



OVER