CHECKLIST FOR FILING A UIC PERMIT APPLICATION

Please utilize this checklist to ensure you have prepared, completed, and enclosed all required documentation and payment to ensure a timely review of your submittal.

Operator	Lippizan Petroleum, Inc.		
Existing UIC Permit ID Number	2D1070739	UIC Well API Number	47-107-00739

Office of Oil and Gas Office Use Only	
Permit Reviewer	ZGS
Date Received	7/2/2014
Administratively Complete Date	7/17/2014
Approved Date	
Permit Issued	

Please check the fees and payment included.

Fees		Payment Type	
UIC Permit Fee: $500	X	Check	X
Groundwater Protection Plan (GPP) Fee: $50.00	X	Electronic	
		Other	

Please check the items completed and enclosed.

- [X] Checklist
- [X] UIC-1
  - [X] Section 1 – Facility Information
  - [X] Section 2 – Operator Information
  - [X] Section 3 – Application Information
  - [X] Section 4 – Applicant/Activity Request and Type
  - [X] Section 5 – Brief description of the Nature of the Business
  - [X] CERTIFICATION
- [X] Section 6 – Construction
  - [X] Appendix A Injection Well Form
  - [X] Appendix B Storage Tank Inventory
- [X] Section 7 – Area of Review
  - [X] Appendix C Wells Within the Area of Review

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- [x] Appendix D Public Service District Affidavit
- [x] Appendix E Water Sources
- [x] Appendix F Area Permit Wells
- [x] Section 8 – Geological Data on Injection and Confining Zones
- [x] Section 9 – Operating Requirements / Data
  - [x] Appendix G Wells Serviced by Injection Well
- [x] Section 10 – Monitoring
- [x] Section 11 – Groundwater Protection Plan (GPP)
  - [x] Appendix H Groundwater Protection Plan (GPP)
- [x] Section 12 – Plugging and Abandonment
- [x] Section 13 – Additional Bonding
- [x] Section 14 – Financial Responsibility
  - [x] Appendix I Financial Responsibility
- [x] Section 15 – Site Security Plan
  - [x] Appendix J Site Security for Commercial Wells
- [x] Section 16 – Additional Information
  - [x] Appendix K Other Permit Approvals

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NOTE: For all 2D wells an additional bond in the amount of $5,000 is required.

Reviewed by (Print Name): Robert L Matthey Jr

Reviewed by (Sign):

Date Reviewed: 06/27/14

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UIC-1
(4/25)

WEST VIRGINIA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
601 57th Street, SE
Charleston, WV 25304
(304) 926-0450
www.dep.wv.gov/oil-and-gas

UNDERGROUND INJECTION CONTROL (UIC) PERMIT APPLICATION

UIC PERMIT ID # 2D1070739 API # 47-107-00739 WELL # 3-577 Howard Hess

Section I. Facility Information

Facility Name: LIPPIZAN PETROLEUM HESS DISPOSAL WELL

Address: Post Office Box 98

City: Ellenboro State: WV Zip: 26346

County: Wood Konawha 7.5 Quadrangle

Location description: Approximately 500 feet North of US-Hwy-50 and 4500' SW of Dallison, WV

Physical Description of Equipment and Tanks on map, EXIT US RT 50 A MONTGOMERY HILL ROAD

Location of well(s) or approximate center of field/project in UTM NAD 83 (meters):

Northing: 4343976 Easting: 465564

Environmental Contact Information:

Name: DAVID ROSS Title: FIELD SUPERVISOR

Phone: Home (304) 643-4437 (304) 838-1302 Email: LIPPIZANPETROLEUM@yahoo.com

Section 2. Operator Information

Operator Name: Lippizan Petroleum

Operator ID: – 309092

Address: Post Office Box 98

City: Ellenboro State: WV Zip: 26346

County: Ritchie

Contact Name: Robert L. Matthey Contact Title: Vice President

Contact Phone: (304) 838-1299 Contact Email: bobmatthey@westvirginia.com

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Section 3. Applicant Information

Ownership Status: ☑ PRIVATE ☐ PUBLIC ☐ FEDERAL ☐ STATE
☐ OTHER (explain):

SIC code: ☑ 1311 (2D, 2H, 2R) ☐ 1479 (3S) ☐ OTHER (explain):

Section 4. Applicant / Activity Request and Type:

A. Apply for a new UIC Permit: ☑ 2D ☐ 2H ☐ 2R ☐ 3S
B. Reissue existing UIC Permit: ☑ 2D ☐ 2H ☐ 2R ☐ 3S
C. Modify existing UIC Permit: ☐ 2D ☐ 2H ☐ 2R ☐ 3S
(Submit only documentation pertaining to the modification request)

2D COMMERCIAL FACILITY: ☐ YES ☒ NO

Section 5. Briefly describe the nature of business and the activities to be conducted:

LIPPIZAN PETROLEUM, INC IS A SMALL OIL AND GAS OWNING & OPERATING CONVENTIONAL OIL AND GAS WELLS IN WEST VIRGINIA. LIPPIZAN PETROLEUM NEEDS THIS WELL (W000739) FOR BRINE DISPOSAL FROM WELLS IN WOOD, RITCHIE, AND WIRT COUNTIES.

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CERTIFICATION

All permit applications must be signed by a responsible corporate officer for a corporation, by a general partner for a partnership, by the proprietor of a sole proprietorship, or by a principal executive or ranking elected official for a public agency, or a [1]duly authorized representative in accordance with 47CSR13-13.11.b.

A. Name and title of person applying for permit:

Print Name: Robert L. Maffay, Jr.

Print Title: VICE PRESIDENT

B. Signature and Date.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature: Robert L. Maffay

Date: June 19, 2014

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[1] A person is a duly authorized representative if:

The authorization is made in writing by a person described in subdivision 47CSR13-13.11.a.

The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of the plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility.

The written authorization is submitted to the Director.

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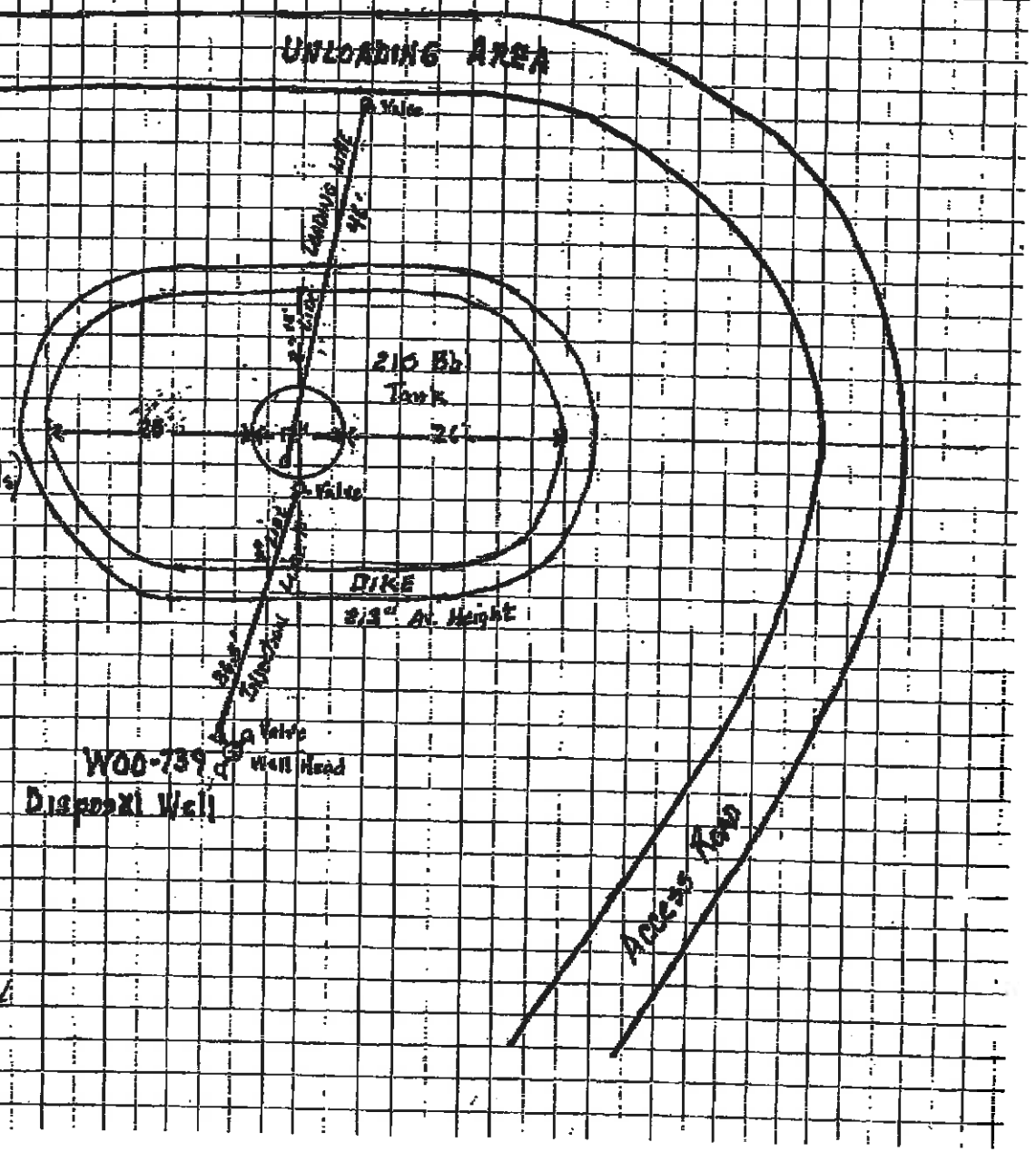

Dimension of the Facility

Dike = 63' Length
= 32' Wide
= 2.25' High.

Distances
Tank to well = 36.5'
Tank to road = 37.0'

Area of Dike = 3519 cu.ft (62.6 bbls)
Area of Tank = 260 cu.ft.

Lippizan Petroleum, Inc.

Facilities Map
WOO-739 Disposal Well

Union District
Wood County, WV.

Scale: 1" = 20'. Prepared: BAP

SECONDARY CONSTRUCTION –
Compacted earthen material

8/18/14

#739 disposal well measurements taken by Mac Ross

From tank to the well	36 ½ feet
From tank to the road	37 feet approx..
Tank dike	L = 63 ft W = 32 ft H = 2 ft 3 in

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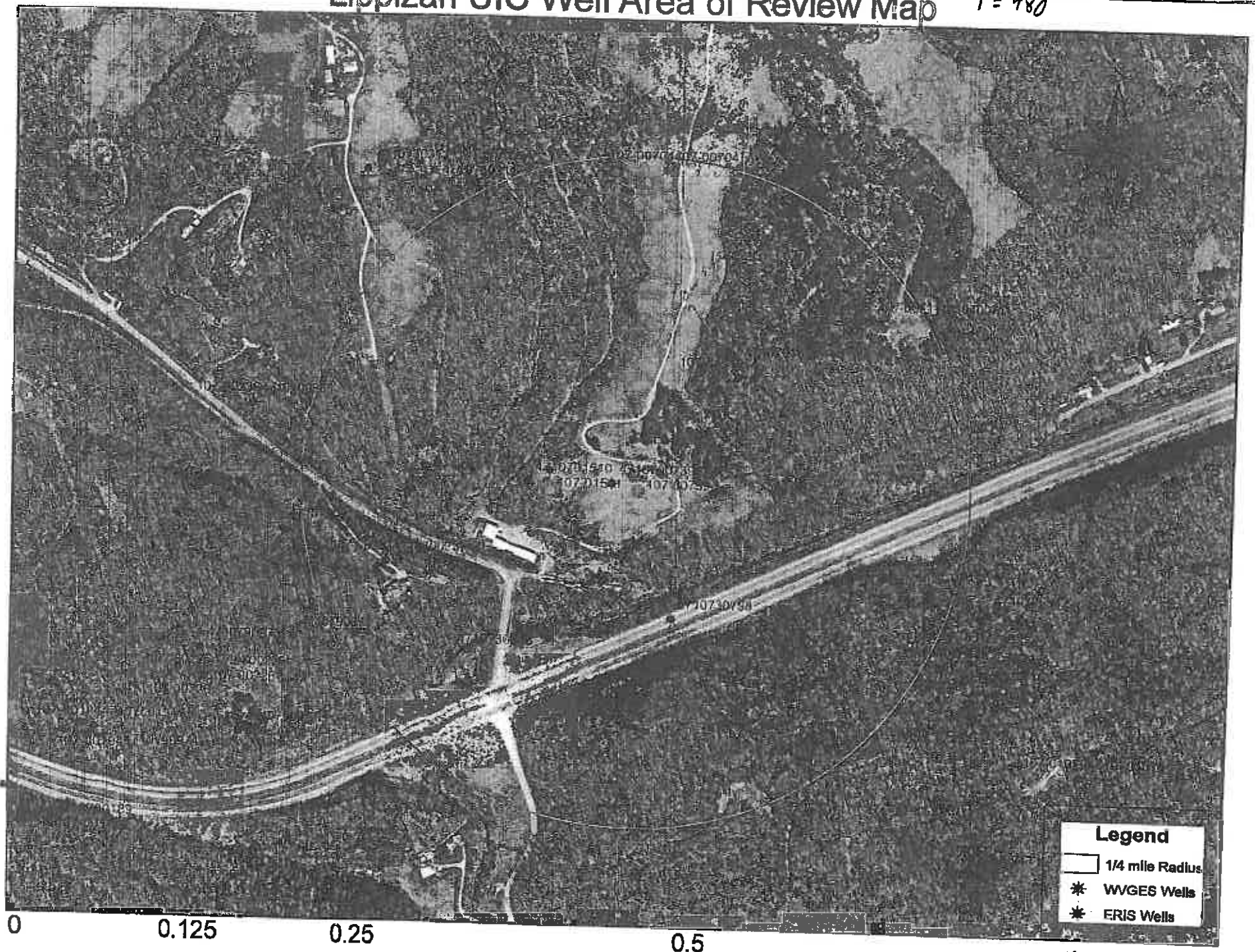
APPENDIX B
Storage Tank Inventory

API #	Tank ID	Tank Location (UTM NAD 83 Meters)		Installation Date	Tank Age (Months)	Construction Material (Steel, plastic, etc.)	Capacity (gallons)	Type of Fluid Stored	Volume of Fluid Stored (gallons)	Tank Type Single/Double Wall
		Northing	Easting							
47-107-00739	1	4343976	4655564	1998	17 year	STEEL	8820	BRINE WATER		SINGLE

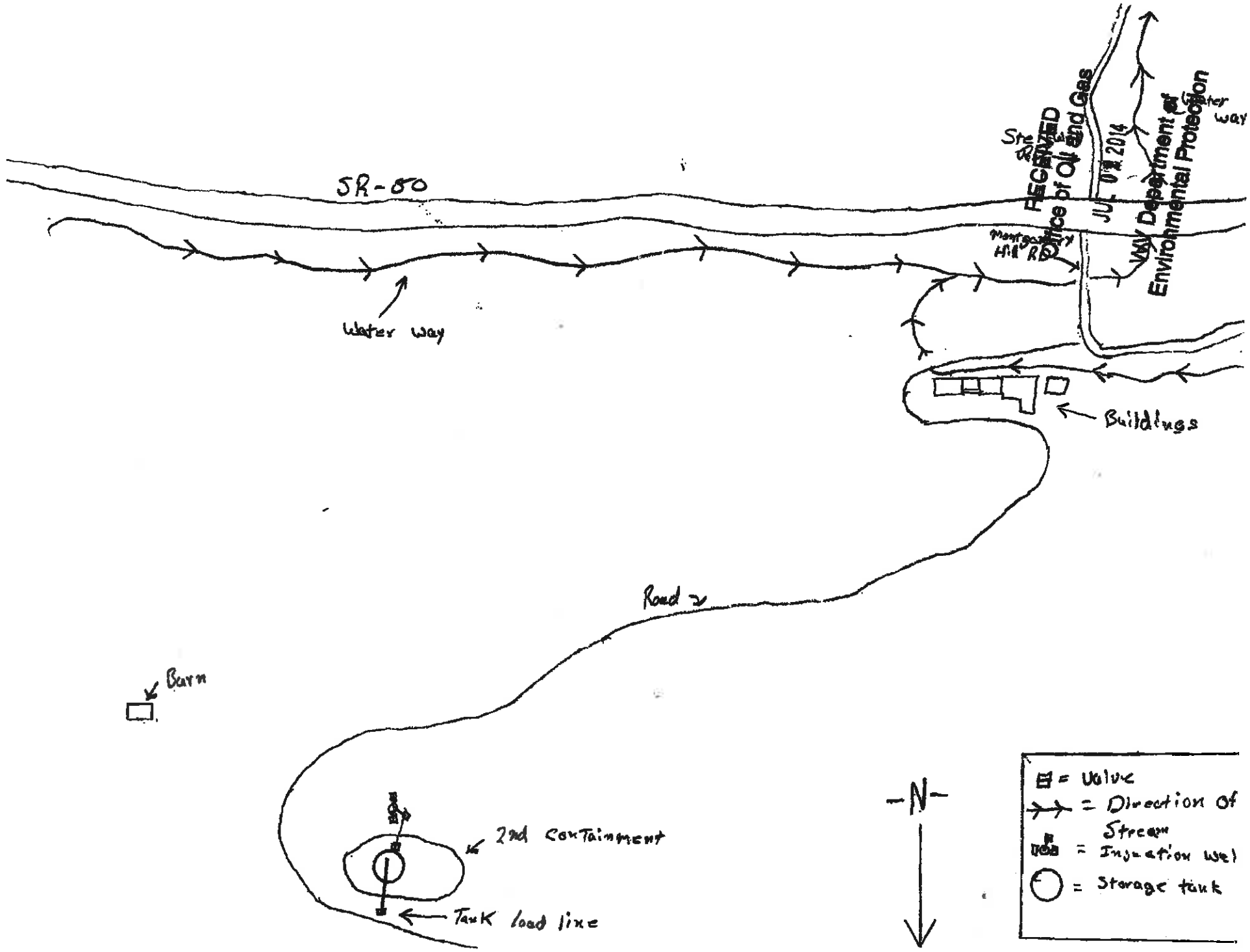
Lippizan UIC Well Area of Review Map

1" = 480



0 0.125 0.25 0.5

Scale: 1" = 480



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WV Department of Environmental Protection

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APPENDIX A
Injection Well Form

1) GEOLOGIC TARGET FORMATION Berea Sandstone

Depth 2182 Feet (top) 2185 Feet (bottom)

2) Estimated Depth of Completed Well, (or actual depth of existing well): 2276 PBTD Feet

3) Approximate water strata depths: Fresh 170 Feet Salt 1050' Feet

4) Approximate coal seam depths: None reported

5) Is coal being mined in the area? Yes [ ] No [✓]

6) Virgin reservoir pressure in target formation 1000 psig Source Area Wells when drilled

7) Estimated reservoir fracture pressure 1000 psig (BHFP)

8) MAXIMUM PROPOSED INJECTION OPERATIONS:

Injection rate (bbl/hour) 1 bbls water/Hour (Gravity Flow)

Injection volume (bbl/day) Approx. 10 BWPD

Injection pressure (psig) (Gravity Fed)

Bottom hole pressure (psig) 980 lbs.

9) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES:

Ritchie, Pleasant Wirt Salt Brine with no additives, from zones above Berea or Berea Sand.

Temperature of injected fluid: (°F) 75°F

10) FILTERS (IF ANY)

NONE

11) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL

Not Available

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APPENDIX A (cont.)

12. Casing and Tubing Program

TYPE	Size	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill-up (Cu. Ft.)
Conductor	11 3/4"	used	N.A.	(Pulled)	30'	30'	
Fresh Water	8 5/8"	NEW	N.A.	24	331'	331'	Cement to Surface,
Coal				NO COAL			
Intermediate 1	8 5/8"	New	N.A.	24	331	331	Cement to Surface
Intermediate 2							
Production	4 1/2"	New	J-55	10.5	0	2266	700-2266-100 SX
Tubing	2 3/8"	New	J-55		0	2150	NONE
Liners		NONE					

TYPE	Wellbore Diameter	Casing Size	Wall Thickness	Burst Pressure	Cement Type	Cement Yield (cu. ft./sk)	Cement to Surface ? (Y or N)
Conductor	16"	11 3/4"	N.A	N.A.	Not cemented	No	Pulled
Fresh Water							
Coal	NONE	NONE					
Intermediate 1	10 3/4"	8 5/8			Class-A	2.64	Yes
Intermediate 2							
Production	6 1/4"	4 1/2"	10.6#/ft.	4200#	Neat Cmt	22.6	NO
Tubing							
Liners							

PACKERS	Packer #1	Packer #2	Packer #3	Packer #4
Kind:	TENSION			
Sizes:	2 3/8 X 4 1/2"			
Depths Set:	2150'			

Figure - 1

Schematic Diagram

of Wood County - 739

Disposal Well

SCALE: 1.234" = 500 ft.

Drill Bit

Bore Hole sizes.

16" hole to 30'

10¾" hole to 30-331'

6¾" hole 331 - 2280 TD

Casing

30' of 11¾" used Casing (conductor)

331' of 8⅝" New - 24# Casing (wtr. string)

2246' of 4½" New, J-55, 10.5 Casing

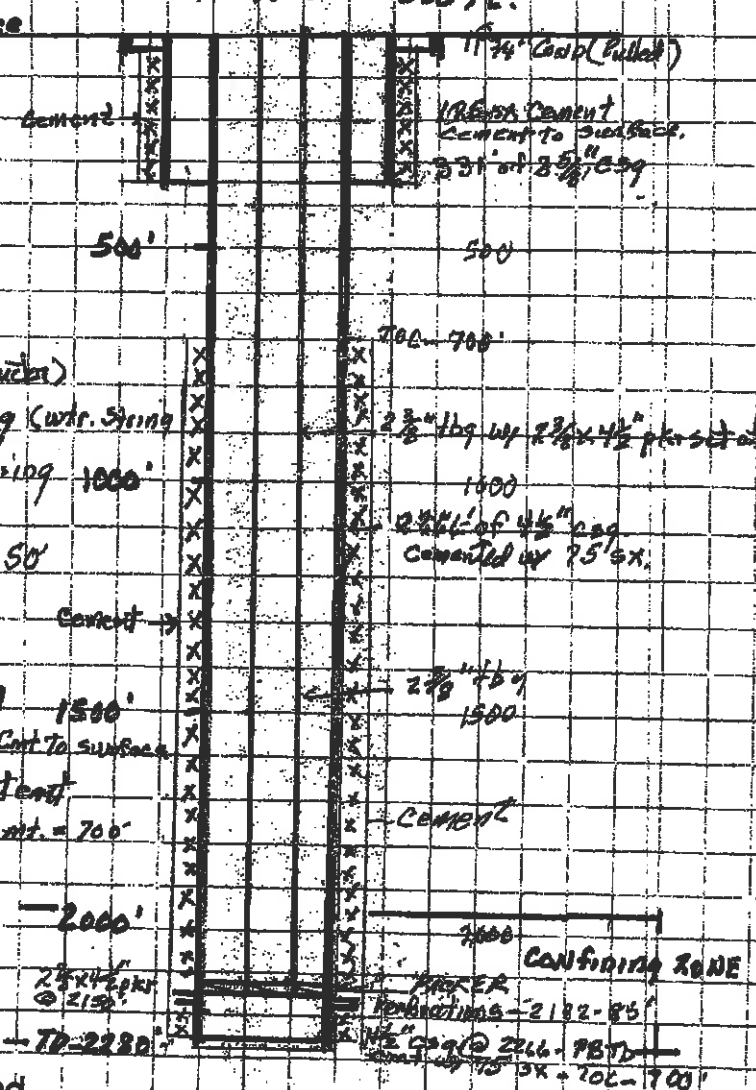
2150' of 2⅜" New tbg, J-55

2⅜ x 4½" Formation Pkr set @ 2150'

Cementing

8⅝ Csg. - 0 - 331', 125 sx Class A cement w/ 2% Calcium Chloride. Cmt to surface

4½" Csg - 700 - 2246', 75 sx Neat cement 2% Calcium chloride. Top of cmt. = 700'



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APPENDIX C

Wells within the Area of Review

API #	Well Type	Well Status (Active, Abandoned, Shut-in, Plugged)	Northing (UTM NAD 83 Meters)	Easting (UTM NAD 83 Meters)	Penetrate Injection Zone (Y or N)	Penetrate Confining Zone (Y or N)	Total Vertical Depth	Surface Elevation	
47-107-00257	DRY & ABANDONED	PLUGGED 1947			YES	YES	2173	706 GL	Bereа
47-107-00798	OIL	PLUGGED 1968			NO	NO	942	672 GL	Cow Run
47-107-01510	OIL	ABANDONED			NO	NO	1200	P 20 GL	Cow Run
47-107-00511	OIL	ABANDONED			NO	NO	1200'	N/A	Cow Run
47-107-00618	OIL	PLUGGED			NO	NO	2155	644 GL	Bereа

Make as many copies as necessary and include page numbers as appropriate.

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Section 7 – Area of Review

API 47-107-00237

In our detailed search of the area where #237 is purported to be located, we cannot find any evidence as to where the well is. Thusly, it is our belief that the brine disposal hydrostatic pressure level would not raise the column of fluid in this area that would cause any problems in any other wells in the area of review.

API 47-107-00618

In our detailed search of the area of #618, we cannot locate the surface location of the well. Furthermore,it is our belief that the hydrostatic pressure in well #739 will not affect the column of fluid in this well or any wells within the area of review.

API 47-107-01510

Well records are included for this well. Non- Producing Cow Run Well According to the WV Geological Survey, this well was drilled to a total Depth of 1200' and was producing minor amounts of oil from the Pennsylvania Cow Run Sand. This well is located within the area of review and is located approximately 457 feet southwest of the disposal well. This well did not penetrate the confining layer or the Berea Sandstone.

API 47-107-01511

Well records are included for this well. Non- Producing Cow Run Well This well is located within the quarter mile area of review and is located approximately 624 feet north-northeast of #739, the disposal well. This well was drilled to a depth of 1200 feet through the Pennsylvania Cow Run Sand, a shallow oil producing horizon for the area. This well did not Penetrate the confining layer or the Berea Sandstone.

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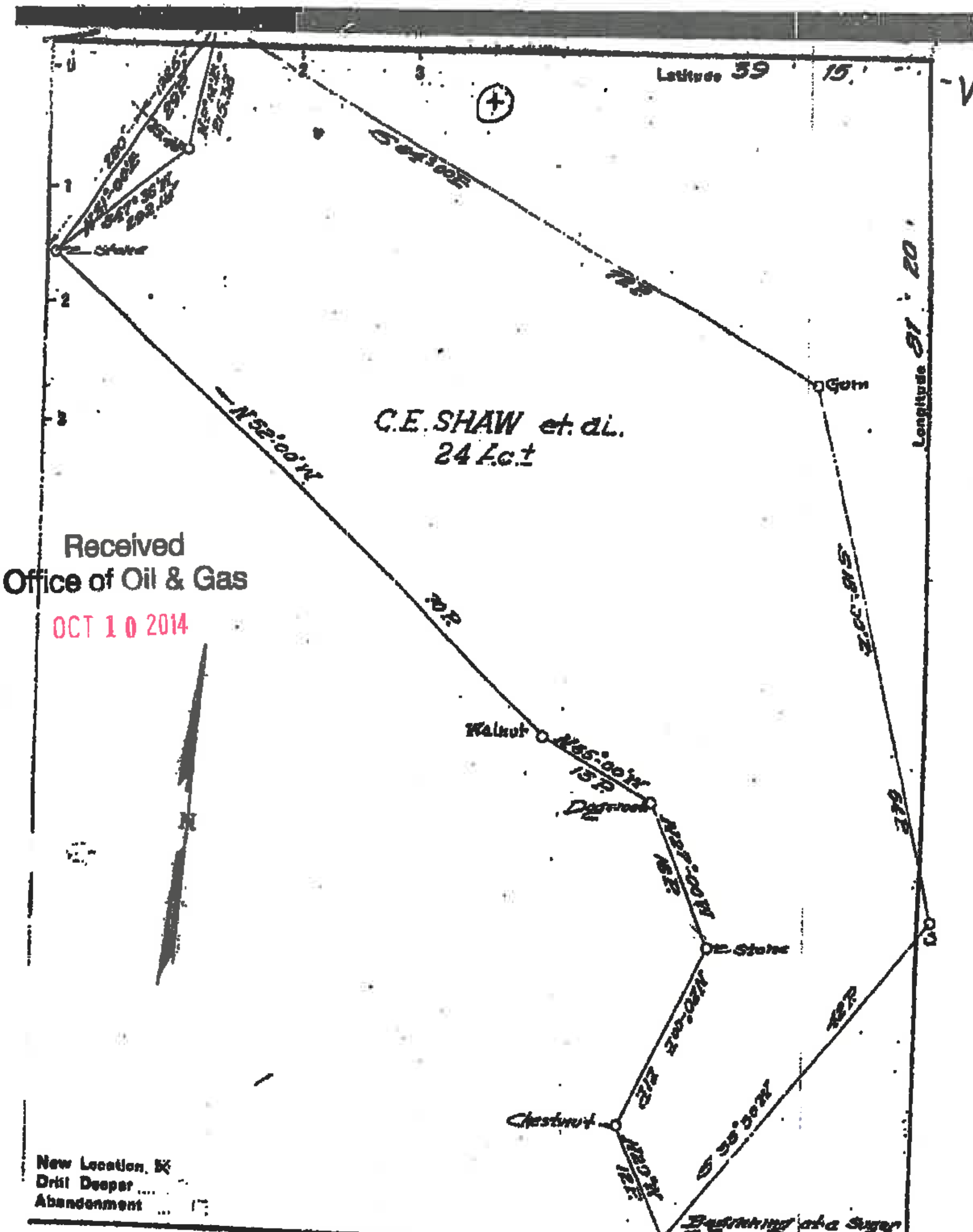
W00-237



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New Location ☒
Drill Deeper ....
Abandonment ... ☐

Company TEXAS OIL & GAS CO.
Address WALKER RED #2
Farm C.E. SHAW et al.
Tract ________ Acres 24 Lease No. ________
Well (Farm) No. ________ Serial No. ________
Elevation (Spirit Level) 760
Quadrangle ELIZABETH
County WOOD District WALKER
Engineer L.G. MERRILL
Engineer's Registration No. 152
File No. ________ Drawing No. ________
Date Sept. 29, 1947 Scale 1" = 200' = 12 P.

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

WELL LOCATION MAP

FILE NO. Woo-237 P

+ 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.

COPY

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Permit No. WOO-237

Oil or Gas Well DRY (KIND)

Company Texas Oil and Gas Company
Address R. F. D. # 2, Walker, W. Va.
Farm C. E. Shaw et al Acres 24
Location (waters) Stillwell Creek
Well No. 1 Elev. 760'
District Walker County Wood
The surface of tract is owned in fee by C. E. Shaw et al
Address Walker, W. Va.
Mineral rights are owned by C. E. Shaw et al
Address Walker, W. Va.
Drilling commenced October 27, 1947
Drilling completed December 27m 1947
Date Shot From To
With
Open Flow /10ths Water in Inch
/10ths Merc. in Inch
Volume Cu. Ft.
Rock Pressure lbs hrs.
Oil bbls., 1st 24 hrs.
Fresh water feet feet
Salt water feet feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer
12			
10	347'		Size of
8¼	1027'		
6⅝	1824'		Depth set
5 3/16			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED SIZE No. Ft. Date

COAL WAS ENCOUNTERED AT None FEET INCHES
FEET INCHES FEET INCHES
FEET INCHES FEET INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Red Rock			0	12			
Sand			12	75			
Red rock			75	85			
Sand			85	100			
Red rock			100	155			
Slate			155	180			
Lime			180	200			
Red rock			200	225			
Slate			225	235			
Red rock			235	250			
Slate and shell			250	380			
Red rock			380	450			
Slate			450	460			
Red rock			460	475			
Slate			475	485			
Red rock			485	495			
Slate			495	525			
Shale			525	575			
Red rock			575	590			
Shale			590	635			
Lime			635	650			
Shale			650	670			
Slate			670	695			
Red rock			695	815			
Slate			815	827			
Lime			827	837			
Slate			837	854			
Red rock			854	880			
Lime			880	952			
Slate			952	980			
Boulder			980	987			
Slate			987	1005			
Pink rock			1005	1015			
Lime			1015	1025			
Sand			1025	1058			
Slate			1058	1115			
Sand			1115	1132			
Slate			1132	1225			
Sand			1225	1257			

PLUGGED DRY HOLE

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(Over)

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Lime			1257	1280			
Sand			1280	1309			
Slate			1309	1321			
Sand			1321	1358			
Slate			1358	1365			
Lime			1365	1442			
Sand			1442	1485			
Lime			1485	1520			
Sand			1520	1555			
Broken lime			1555	1560			
Lime			1560	1580			
Sand			1580	1786	Water	1693'	Hole full
Slate			1786	1790			
Lime			1790	1850			
Slate and shale			1850	2146			
Black shale			2146	2157			
Berea sand			2157	2167			
Shale			2167	2173			
Total depth				2173			

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Date _____, 19____

APPROVED _____, Owner

By _____

(Title)

LEY DANIELS

FORM WV-9

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE. ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THEIR RESPECTIVE ADDRESSES.

No Coal
COAL OPERATOR OR OWNER

ADDRESS

COAL OPERATOR OR OWNER

ADDRESS

LEASE OR PROPERTY OWNER

ADDRESS

Texas oil & gas Co,
Dallas Deem , Contractor
NAME OF WELL OPERATOR

COMPLETE ADDRESS

19

WELL AND LOCATION

Walker, District
Wood County
Well No. 1
C.E. Shaw, et al Farm

STATE INSPECTOR SUPERVISING PLUGGING O.C. Howard

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood } ss:

R. B. Hunt and ~~Boy Deem~~ Delbert Dawson 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 Dallas Deem well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 16th day of March, 19 48, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD	FILLING MATERIAL			PLUGS USED	CASING	
FORMATION	CONTENT	FROM	TO	SIZE & KIND	CSG PULLED	CSG LEFT IN
red clay		2173	1800			
cement		1800	1790	all casing	Pulled	
red clay		1790	1050			
cement		1050	1040			
red clay		1040	800			
bridge		800	500			
red clay		500	to surface			

COAL SEAMS			DESCRIPTION OF MONUMENT
(NAME)			Concrete Marker
(NAME)			
(NAME)			
(NAME)			

and that the work of plugging and filling said well was completed on the 26th day of March, 19 48

And further deponents said not.

R. B. Hunt
Delbert Dawson

Sworn to and subscribed before me this 1st day of May 1948

Ralph E. McBride
Notary Public.

My commission expires: Jan. 2d 1955

Form No. 110-137-P

NOTARY PUBLIC
WEST VIRGINIA
DEPARTMENT OF MINES

DANIELS

PROPOSED MANNER OF PLUGGING AND FILLING WELL

(Required by Rules and Regulations)

WEST VIRGINIA DEPARTMENT OF MINES

OIL AND GAS DIVISION

WORK ORDER

Well to be plugged and filled as follows:

WORK ORDER PREPARED BY THE DEPARTMENT OF MINES

Total Depth 2173'

Fill with red clay from bottom 2173' - 1845' - 21' below 6-5/8" casing
Neat Cement 1845 - 1835'
5' crushed rock on cement plug

PULL 6-5/8" casing

Continue filling with red clay or other non-porous material to 1580'
Neat Cement 1580' - 1570'
5' crushed rock on cement plug - sealing off Salt Water

SET A PERMANENT BRIDGE AT 10 1060'
2 sacks neat cement and 5' crushed rock on bridge
PULL 8-1/4" casing and
Continue filling with clay to 825'
Neat Cement 825 - 815'

SEAT A PERMANENT BRIDGE AT 547' as 10" casing is lifted
2 sacks neat cement and 5' crushed stone on bridge
Fill with clay to surface

Erect marker such as is described in Rule 18, 1931 Regulations

To the Department of Mines
Coal Owner or Operator,
Lease or Property Owner.

Gentlemen:

This "work order" is submitted for your approval and concurrence and unless notified of your disapproval or non-concurrence, the undersigned will proceed with the plugging and filling of said well in the above described manner on the date stated in the notice of intention to plug and abandon the said well on opposite side of this sheet.

Very truly yours,

by B R Piersol

Well Operator.

No objections have been filed by the coal owner or coal operator, or any available adjacent lease or property owners or interposed by the Department of Mines to the manner herein described for the plugging and filling of the well above mentioned. Therefore, the same is hereby approved this

8th day of March, 1948, 19__

DEPARTMENT OF MINES
Oil and Gas Division

By: _____

NOTE: This "work order" shall be filed in triplicate, one copy for the files of the Department of Mines; one to be approved or corrected and returned to the well operator as his authority for plugging said well; and one for the well inspector.

SHIRLEY DANIELS

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES

OIL AND GAS DIVISION

INSPECTOR'S PLUGGING REPORT

Permit No. Wood 237 P Well No. 1 Parkersburg WVC

COMPANY Texas Oil & Gas Co. ADDRESS 2 Dallas Dam 493 Waverly Rd

FARM C. E. Shaw et al DISTRICT Wilkes COUNTY Wood

Filling Material Used Clay and cement

Liner Location Amount Packer Location

PLUGS USED AND DEPTH PLACED			BRIDGES	CASING AND TUBING		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOST
	Clay	[illegible]	2173 – 1945	1824	6 5/8	0.0
10'			1845 – 1835	1027	8 1/4	0.0
	Stone		1835 – 1830	347	10'	0.0
	Clay		1830 – 1590			
10'			1590 – 1570			
	Stone		1570 – 1565			
	Bridge		1060 –			
2 sacks						
	Stone		1060 – 1055			
	Clay		1055 – 825			
10'			825 – 915			
	Bridge		347			
2 sack			347			
	6 ft stone		347 Filled to surface			

Drillers' Names Raymond Hunt Frank Hendershot

Marker will be set later

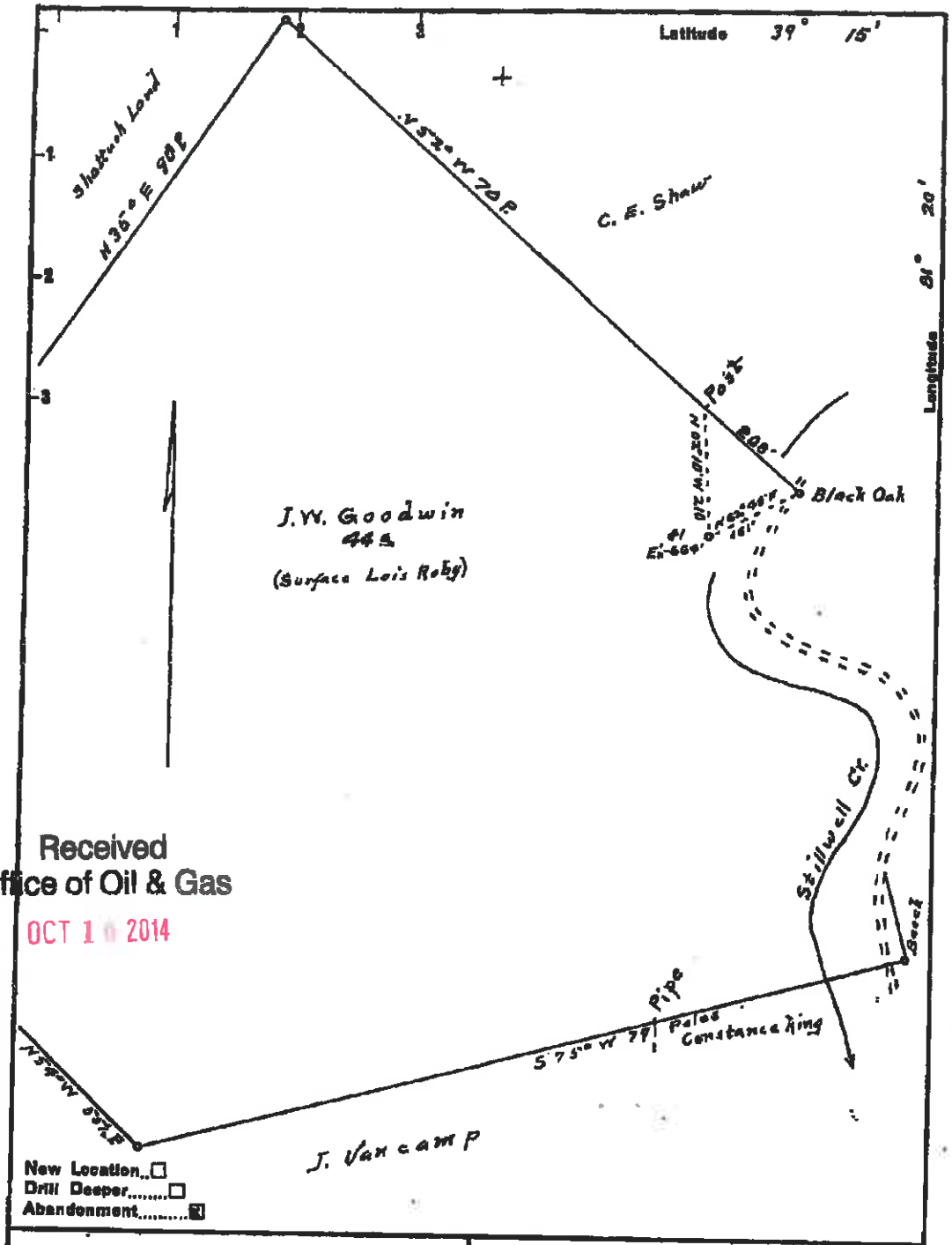
Remarks:

MAR 1944 WEST VIRGINIA DEPARTMENT OF MINES

3/25-194 DATE I hereby certify I visited the above well on this date.

C. E. Howard
DISTRICT OIL AND GAS INSPECTOR

WOO-618



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WOO-618

New Location ☐
Drill Deeper ☐
Abandonment ☑

Company Clyde Mc Peak
Address R1 Davisville W.Va.
Farm J.W. Goodwin
Tract ____ Acres 44 Lease No. ____
Well (Farm) No. 1 Serial No. ____
Elevation (Spirit Level) 664'
Quadrangle Elizabeth
County Wood District Walker
Engineer Robert R. Anderson by O. Meredith
Engineer's Registration No. 296
File No. ____ Drawing No. ____
Date 4/30 54 Scale 1 in = 200 feet

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

WELL LOCATION MAP

FILE NO. WOO-618-A

+ 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.

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Permit No. Woo-618-A

Oil or Gas Well Oil (KIND)

Company CLYDE McPEEK
Address DAVISVILLE, RFD#1, W.VA.
Farm J. W. GOODWIN Acres 44
Location (waters) STILLWELL CREEK
Well No. 1 Elev. 644'
District WALKER County WOOD
The surface of tract is owned in fee by LOIS ROBY
PARKERSBURG, W.VA Address
Mineral rights are owned by UNKNOWN
Address
Drilling commenced UNKNOWN
Drilling completed
Date Shot From To
With
Open Flow /10hs Water in Inch
/10hs Merc. in Inch
Volume Cu. Ft.
Rock Pressure lbs. hrs.
Oil bbls., 1st 24 hrs.
Fresh water feet feet
Salt water feet feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16	ALL PIPE IS AN		Kind of Packer
13	ESTIMATED REASONS		
10	260'	NONE	Size of
8¼	1100'	NONE	
6⅝	1790'	1790'	Depth set
7/8"	1820'	1820'	
3			Perf. top
2	2150'	2150'	Perf. bottom
Liners Used	NONE		Perf. top
			Perf. bottom

CASING CEMENTED SIZE No. Ft. Date

COAL WAS ENCOUNTERED AT NO COAL FEET INCHES
FEET INCHES FEET INCHES
FEET INCHES FEET INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks

TOTAL DEPTH 2155'

NO RECORD AVAILABLE EXCEPT INFORMATION ALREADY GIVEN

THIS WELL IS ONE OF THE FIRST DRILLED IN THIS AREA AND NO ONE HAS ANY RECORD OF IT.

APR 1954
WEST VIRGINIA
DEPARTMENT OF MINES

Received
Office of Oil & Gas
OCT 1 0 2014

(Over)

FORM OG-4

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

W00-618

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE. ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THEIR RESPECTIVE ADDRESSES.

NO COAL
COAL OPERATOR OR OWNER

ADDRESS

COAL OPERATOR OR OWNER

ADDRESS

J W GOODWIN HEIRS.
LEASE OR PROPERTY OWNER

UNKNOWN
ADDRESS

CLYDE McPEEK
NAME OF WELL OPERATOR

ROUTE # 1, DAVISVILLE, W.VA
COMPLETE ADDRESS

JUNE 1, 1954
WELL AND LOCATION

WALKER District

WOOD County

Well. No. 1

J W GOODWIN Farm

STATE INSPECTOR SUPERVISING PLUGGING G. C. HOWARD, GRANTSVILLE, W.VA

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of WOOD } ss:

CLYDE McPEEK and JAMES E CLEGG
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 CLYDE McPEEK, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 29 day of APRIL, 19 54, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD	FILLING MATERIAL	PLUGS USED	CASING	
FORMATION		SIZE & KIND	CSG PULLED	CSG LEFT IN
	TOTAL DEPTH 2155'			
	SET PERMANENT BRIDGE AT 2120'			
	3 SACKS CEMENT & CRACKED STONE TO 2105'			
	RED CLAY TO 1850'			
	2 SACKS CEMENT & CRACKED STONE TO 1835'			
	PARTED 7 7/8" CSG. AT 1765'			
	PARTED 6 5/8" CSG. AT 160'			
	2 SACKS CEMENT & CRACKED STONE TO 140'			
	RED CLAY TO 2' OF SURFACE			

COAL SEAMS
(NAME)
(NAME)
(NAME)
(NAME)

DESCRIPTION OF MONUMENT
PIECE OF 6 5/8" CSG SET IN CEMENT FROM 2' BELOW SURFACE TO 30" ABOVE. FARM NAME OWNERS NAME, WELL NO. & DATE INSCRIBED THEREON.

JUN 1954
WEST VIRGINIA
DEPARTMENT OF MINES

Received
Office of Oil & Gas
OCT 10 2014

and that the work of plugging and filling said well was completed on the 2 day of JUNE, 19 54.

And further deponents saith not.

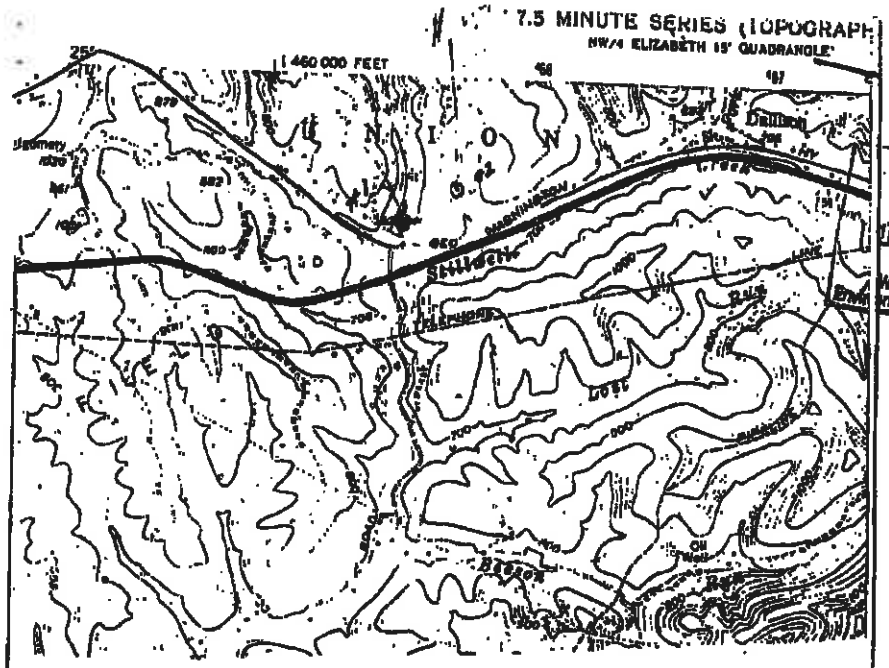
Clyde McPeek
James E Clegg

Sworn to and subscribed before me this 7 day of June, 1954

Marie E Clegg
Notary Public.

My commission expires:
July 29, 1963

Permit No. W00-618 - A



14 1992
WV Division of Environmental Protection

W00-1510

Producing

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief.

SIGNED Glen P. Robinson

TITLE District Inspector

DATE 8 September, 1992

OPERATORS WELL NO. Hess #1

API WELL NO. 47-107-1510

Received
Office of Oil & Gas
OCT 10 2014

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

WELL TYPE: OIL X GAS ____ LIQUID INJECTION ____ WASTE DISPOSAL ____
(IF "GAS" PRODUCTION ____ STORAGE ____ DEEP ____ SHALLOW ____

LOCATION: ELEVATION 820' WATER SHED Stillwater Creek
DISTRICT UNION COUNTY Wood
QUADRANGLE Parkersburg

SURFACE OWNER Sam Hammett/Hess ACREAGE 102

OIL & GAS ROYALTY OWNER Unknown LEASE ACREAGE ____
LEASE NO. ____

PRODUCING FORMATION ____ TOTAL DEPTH 1200'

WELL OPERATOR B.F. McCullough DESIGNATED AGENT B.F. McCullough
ADDRESS 1505 Liberty St. ADDRESS 1505 Liberty St.
Parkersburg, WV 26101 Parkersburg, WV 26101

31705

SEP 21 1992

Company ____

Farm Sam Hammett/Hess

15' Quad (sec.) Elizabeth (NE)

7.5' Quad Kanawha

District Union

WELL LOCATION PLAT

County 107 Permit 1510

"Pipeline"

Select County: (107) Wood
Enter Permit #: 01510
Get Data Reset

Select datatypes: (Check All)
Location | Production | Plugging
Owner/Completion | Stratigraphy | Sample
Pay/Show/Water | Logs | Bim Hole Loc

Table Descriptions
County Code Translations
Permit Numbering Series
Usage Notes
Contact Information
Disclaimer
WVGES Main
"Pipeline-Plus" New

WV Geological & Economic Survey:

Well: County = 107 Permit = 01510

Report Time: Wednesday, October 01, 2014 10:54:28 AM

Location Information: View Map

API	COUNTY	PERMIT	TAX_DISTRICT	QUAD_75	QUAD_15	LAT_DD	LON_DD	UTME	UTMN
4710701510	Wood	1510	Union	Kanawha	Elizabeth	38.24442	-81.400204	455465.1	4343877

There is no Bottom Hole Location data for this well

Owner Information:

API	CMP_DT	SUFFIX	STATUS	SURFACE_OWNER	WELL_NUM	CO_NUM	LEASE	LEASE_NUM	MINERAL_OWN	OPERATOR	PROP_VD	PROP_TRGT_FM
4710701510	-/-	Original Loc	Completed	Sam Hanna/Hess 1						McCullough, B. F.		

Completion Information:

API	CMP_DT	SPUD_DT	ELEV	DATUM	FIELD	DEEPEST_FM	DEEPEST_FMT	INITIAL_CLASS	FINAL_CLASS	TYPE	RIG	CMP_MTHD	TVD	TMD	NEW_FTG	O_BEF	O_AFT	O_BEF	O_AFT	P_BEF	TI_BEF	P_AFT	TI_AFT
4710701510	-/-	-/-	820	Ground Level	Hindrahe-Ogdin			unclassified	unclassified	Oil	unknown	unknown	1200		1200	0	0	0	0	0	0	0	0

There is no Pay data for this well

There is no Production Gas data for this well

There is no Production Oil data for this well ** some operators may have reported NGL under Oil

There is no Production NGL data for this well ** some operators may have reported NGL under Oil

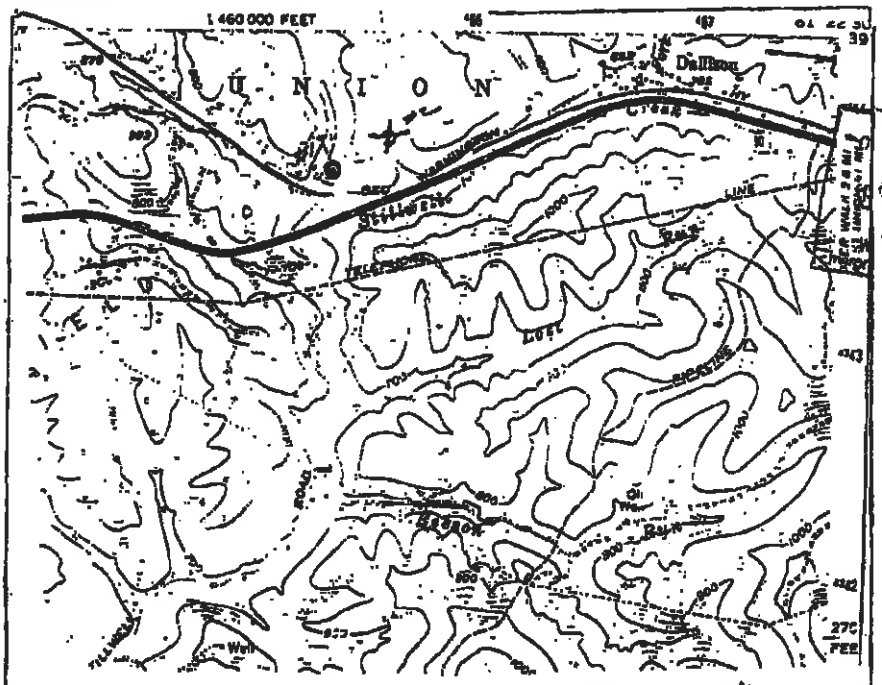
There is no Stratigraphy data for this well

There is no Wireline (E-Log) data for this well

There is no Plugging data for this well

There is no Sample data for this well

Received
Office of Oil & Gas
OCT 10 2014



RECEIVED
Office of Oil & Gas
Permitting
OCT 14 92
W Division of
Environmental Protection

W00-1511

Producing

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief.

SIGNED [illegible]
TITLE District Inspector

DATE 8 September 19 92
OPERATORS WELL NO. [illegible]
API WELL NO. 47-107-1511

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

WELL TYPE: OIL X GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___
(If "GAS" PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___

LOCATION: ELEVATION ___ WATER SHED ___
DISTRICT ___ COUNTY ___
QUADRANGLE ___

SURFACE OWNER Sam Hammett / Howard Hess ACREAGE 102

OIL & GAS ROYALTY OWNER [illegible] LEASE ACREAGE ___
LEASE NO. ___

PRODUCING FORMATION 3170'S TOTAL DEPTH 1200'

WELL OPERATOR B.F. McCullough DESIGNATED AGENT B.F. McCullough
ADDRESS 1505 Liberty St. ADDRESS 1505 Liberty St.
Parkersburg, WV 26101 Parkersburg, WV 26101

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OCT 10 2014

SEP 21 1992

Company ___
Farm Sam Hammett / Howard Hess
15' Quad (sec.) Elizabeth (NC)
7.5' Quad Kanawha
District Union

WELL LOCATION PLAT

County 107 Permit 1511

"Pipeline"

Select County: (107) Wood
Enter Permit #: 01511
Get Data | Reset

Select datatypes: (Check All)
✓ Location ✓ Production ✓ Plugging
✓ Owner/Completion ✓ Stratigraphy ✓ Sample
✓ Pay/Show/Water ✓ Logs ✓ Stm Hole Loc

Table Descriptions
County Code Translations
Permit-Numbering Series
Usage Notes
Contact Information
Disclaimer
WVGES Main
"Pipeline-Plus" New

WV Geological & Economic Survey:

Well: County = 107 Permit = 01511

Report Time: Wednesday, October 01, 2014 10:55:31 AM

Location Information: View Map

API	COUNTY	PERMIT	TAX_DISTRICT	QUAD_7#	QUAD_15	LAT_DD	LON_DD	UTME	UTMN
4710701511	Wood	1511	Union	Kanawha	Elizabeth	39.245725	-81.397407	465707.1	4344120.6

There is no Bottom Hole Location data for this well

Owner Information:

API	CMP_DT	SUFFIX	STATUS	SURFACE_OWNER	WELL_NUM	CO_NUM	LEASE	LEASE_NUM	MINERAL_OWN	OPERATOR	PROP_VD	PROP_TRST_FM
4710701511	-/-/-	Original Loc	Completed	Hanewall/Hess 2						McCullough, B. F.		

Completion Information:

API	CMP_DT	SPUD_DT	ELEV	DATUM	FIELD	DEEPEST_FM	DEEPEST_FMT	INITIAL_CLASS	FINAL_CLASS	TYPE	RIG	CMP_MTHD	TVD	TMD	NEW_FTG	O_BEF	O_AFT	O_BEF	O_AFT	P_BEF	TI_BEF	P_AFT	TI_AFT
4710701511	-/-/-	-/-/-			Hindsett-Ogdin			unclassified	unclassified	Oil	unknown	unknown	1200		1200	0	0	0	0	0	0	0	0

There is no Pay data for this well

There is no Production Gas data for this well

There is no Production Oil data for this well ** some operators may have reported NGL under Oil

There is no Production NGL data for this well ** some operators may have reported NGL under Oil

There is no Stratigraphy data for this well

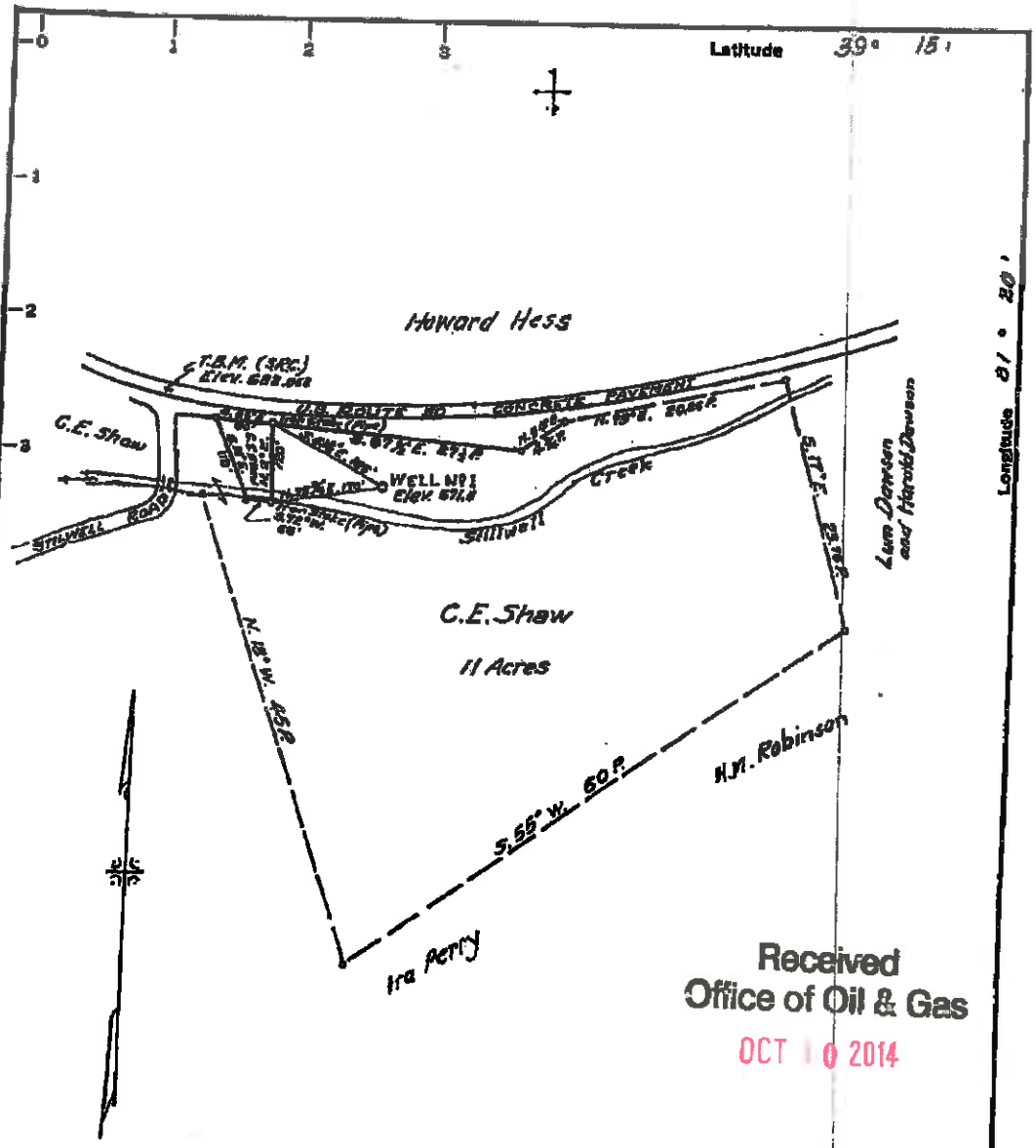
There is no Wireline (E-Log) data for this well

There is no Plugging data for this well

There is no Sample data for this well

Received
Office of Oil & Gas
OCT 10 2014

WOO - 798



Received
Office of Oil & Gas
OCT 10 2014

MINIMUM ERROR OF CLOSURE 1/400

SOURCE OF ELEVATION State Road Commission T.B.M. at & Route U.S. 50 and Stilwell Road

New Location ☐
Drill Deeper ☐
Abandonment ☒
4-24-68

"I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS MAP IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY PARAGRAPH 6 OF THE RULES AND REGULATIONS OF THE OIL AND GAS SECTION OF THE MINING LAWS OF WEST VIRGINIA."

Company Harold Dawson, Clyde McPeek, Agt.
Address Route 1, Davisville, W.Va. 26142
Farm C.E. Shaw
Tract 4 Acres 11 Lease No.
Well (Farm) No. 1 Serial No.
Elevation (Spirit Level) 671.5
Quadrangle Elizabeth
County Wood District Union
Engineer Parker E. Peters
Engineer's Registration No. 485
File No. Drawing No.
Date April 1, 1968 Scale 1" = 200'

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

WELL LOCATION MAP
FILE NO. Woo-798-A

+ 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.

FORM OG-8

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE, ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THEIR RESPECTIVE ADDRESSES.

NO COAL
COAL OPERATOR OR OWNER

ADDRESS

COAL OPERATOR OR OWNER

ADDRESS

HAROLD DAWSON
LEASE OR PROPERTY OWNER

WALKER,R.2.WEST,VA.26160
ADDRESS

CLYDE MCPEEK
NAME OF WELL OPERATOR

DAVISVILLE,R.#1,WEST,VA.[redacted]26142
COMPLETE ADDRESS

MAY, ~~25~~ 17 19 68
WELL AND LOCATION

WALKER District

WOOD County

Well No. 1.

C.E.SHAW Farm

W00-798A

STATE INSPECTOR SUPERVISING PLUGGING MR.HARRY HOLLIDAY

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of WOOD } ss:

CLYDE MCPEEK and CLARENCE DAWSON

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 HAROLD DAWSON, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 2nd day of ~~May~~, 19 68, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD	FILLING MATERIAL	PLUGS USED	CASING
FORMATION		SIZE & KIND	CSG PULLED / CSG LEFT IN
	2nd COW RUN SAND		
	TOTAL DEPTH 942'		
	TOP OF SAND EST. 920'		
	BRIDGE AT 918'		
	CRACKED STONE 918' TO 904'		
	2 SACKS NEAT CEMENT MIXED		
	AT SURFACE AND PLACED ON		
	BOTTOM WITH BAILER.		
	CUT 4-7/8" CASING AT 650'		
	AND PULLED FROM 650'		
	BRIDGE 225'		
	CRACKED STONE 225'		
	TO 208'		
	FILLED WITH CLAY FROM 208'		
	TO SURFACE,AND LET SETTLE		
	DOWNALL IT WOULD GO,		
	1 SACK CEMENT ON HOLE AT		
	SURFACE,CENTERED OVER HOLE		
COAL SEAMS	NO PIPE USED FOR MONUMENT.	DESCRIPTION OF MONUMENT	
(NAME)			
(NAME)			
(NAME)			
(NAME)			

Received
Office of Oil & Gas
OCT 10 2014

MAY 1968
RECEIVED
West Virginia
Dept. of Mines

and that the work of plugging and filling said well was completed on the 17th day of May, 19 68.

And further deponents saith not.

Clyde McPeek
Clarence Dawson

Sworn to and subscribed before me this 18th day of May, 19 68.

Marie E. Clegg
Notary Public.

My commission expires:
Aug 8 1973

Permit No. W00-798-A

DS-18

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Quadrangle Lizabeth

Permit No. W00-798-A

Oil or Gas Well Oil (Kind)

Company Harold Dawson, Clyde McPeek "Agent"
Address Davisville, R.1. West, Va. 26142
Farm C.E. Shaw, R.2. Walker, R.2 26180, Acr. 11
Location (waters) Stillwell Creek
Well No. 1 Elev. 671.5
District Walker County Wood
The surface of tract is owned in fee by C.E. Shaw
Walker, R.2 26180
Mineral rights are owned by Unknown
Address
Drilling commenced Unknown
Drilling completed Unknown
Date Shot Unknown From Unknown To Unknown
With
Open Flow /10ths Water in Unknown Inch
/10ths Merc. in Unknown Inch
Volume Unknown Cu. Ft.
Rock Pressure Unknown lbs. hrs.
Oil Unknown bbls., 1st 24 hrs.
Fresh water Unknown feet feet
Salt water None feet feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Sleeve, or
16	None	None	Dresser packer
13	None	None	Kind of Packer 2"x4-7/8
10	None	None	Size of Pulled all
8¼	Est. 200'	None	including rubber
6⅝	None	None	Depth set
5 3/16	4-7/8-915'	815'	777
3 None	None	None	Perf. top Naje
2 938'	None	None	Perf. bottom None
Liners Used	None	None	Perf. top None
			Perf. bottom None

W00798-A

CASING CEMENTED None SIZE None No. Ft. None Date

COAL WAS ENCOUNTERED AT No Coal FEET INCHES
FEET INCHES FEET INCHES
FEET INCHES FEET INCHES

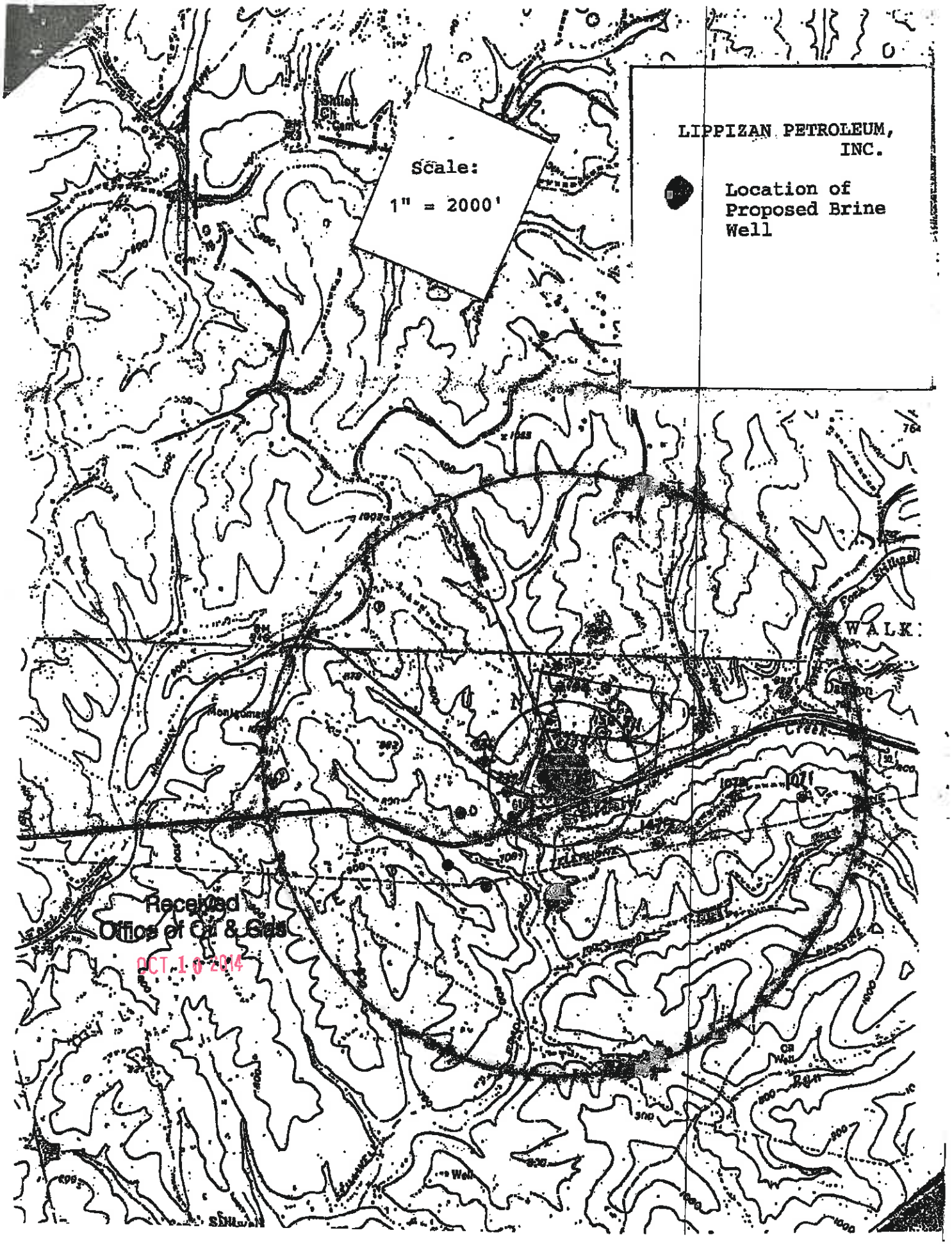
Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks

I cannot give you a formation record of this well because it was drilled in 1910 and I dontknow who to go too to get the information to give you.

I thank you;
Very truly yours.
Clyde McPeek
Davisville, R.1.
West, Va. 26142

Received
Office of Oil & Gas
OCT 1 2014

(Over)



Received
Office of Oil & Gas
OCT 1 0 2014

(4/25)

Received
Office of Oil & Gas
OCT 10 2014

APPENDIX E
Water Sources

Operator: Lippizan Petroleum Year 2014 UIC Permit # 2D1070739

		Source # 1	Source #	Source #	Source #
Water Source Name		Carl Dunlap			
Northing					
Easting					
Parameter	Units				
TPH - GRO	mg/L				
TPH - DRO	mg/L				
TPH - ORO	mg/L				
BTEX	mg/L				
Chloride	mg/L				
Sodium	mg/L				
Total Dissolved Solids (TDS)	mg/L				
Aluminum	mg/L				
Arsenic	mg/L				
Barium	mg/L				
Iron	mg/L				
Manganese	mg/L				
pH	SU				
Calcium	mg/L				
Sulfate	mg/L				
MBAS	mg/L				
Dissolved Methane	mg/L				
Dissolved Ethane	mg/L				
Dissolved Butane	mg/L				
Dissolved Propane	mg/L				
Bacteria (Total Coliform)	c/100ml				

Protecting Pennsylvania's environment.
dep

Sturm Environmental Services

COMPANY: LIPPIZAN PETROELUM

SAMPLE ID: W00D739-DUNLAP

SAMPLED BY: D. ROSS / B. MATTHAY

DATE/TIME SAMPLED:* 06-27-14 1530

DATE/TIME RECEIVED: 06-27-14 1726

SAMPLE ID	pH units	TSS mg/L	TDS mg/L	Cl^- mg/L	MBAS mg/L	SO_4 mg/L	TOC mg/L	Al mg/L	As mg/L	Ba mg/L	Ca mg/L	Fe mg/L	Mn mg/L
WATER SAMPLE	7.3	<4	249	14.9	.15 [1]	29.2	1.51	<.02	.0009	.769	31.6	.16	.230

*Client Provided

**See Attached. The following results meet or exceed requirements and standards set forth by the certifying authority except where noted.

[1] RAN OUT OF HOLDING.

Received
Office of Oil & Gas
OCT 10 2014

APPROVED Rick Callen

MAIN OFFICE—POST OFFICE BOX 650 • BRIDGEPORT, WEST VIRGINIA 26330 • (304) 623-6549
CHARLESTON BRANCH—POST OFFICE BOX 8337 • SOUTH CHARLESTON, WEST VIRGINIA 25303-0337 • (304) 744-9864

STURM ENVIRONMENTAL SERVICES

Received
Office of Oil & Gas
OCT 10 2014

STURM ENVIRONMENTAL,
BRUSHY FORK ROAD
BRIDGEPORT, WV 26330
PHONE: 304-623-6549
FAX: 304-623-6552

STURM ENVIRONMENTAL SERVICES
610 D STREET
SO. CHARLESTON, WV 25303
PHONE: 304-744-9864
FAX: 304-744-7866

MAILING ADDRESSES ARE LISTED BELOW

REPORT TO: Client Name: LIPPIZAN PETROLEUM
Address: PO BOX 98
City/State/Zip: ELLENBORO WV 26346
Contact Person: Bob Matthey
Telephone Number: (304) 869-3418 Fax No. (304) 869-3605
Email Address: Lippizan Petroleum@yahoo.com
Sampler Name: (Print) DAVID ROSS / Bob Matthey
Sampler Signature: [signature]
Project Name: WOOD 739 - DUNLAP
Special Reporting: [ ] Email Results [X] Fax Results

BILL TO: Client Name: SAME
Address: PO Box 98
City/State/Zip: ELLENBORO WV 26346
Contact Person:
Telephone Number: Fax No.
Email Address:
Purchase Order #:
TURN AROUND TIME: Standard
✓ RUSH (pre-scheduled; surcharges may apply) Please Check One
✓ Date Needed July 1st

1 DAY	2 DAY	3 DAY
	X	

Sample ID / Description	COMPOSITE SAMPLE START DATE	START TIME	END DATE	END TIME	GRAB SAMPLE DATE	TIME	Ice	PRESERVATIVE OTHER	HCl	NaOH	H_2SO_4 Plastic	H_2SO_4 Glass	None	HNO_3	MATRIX Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify):	ANALYZE FOR: T. Calc	Alk, Cl, MBAS, TSS	TDS, SO4	Al, As, Ba, Ca,	Fe, Mn	Summit Stuff	See attached	# of Bottles	Flow (gpm, cfs, mgd) circle one	Field pH	Field Conductivity	Field DO	Field Chlorine (mg/L or ug/L) circle one	Field Temp (F° or C°) circle one
WATER SAMPLE	6-27	3:15	6-27	3:30				X					X	X							X	X	X	X	X	X								

Comments

Records retained for 5 years

Relinquished by:	Date	Time	Received by:	Date	Time
Bob Matthey	6-27-14	1726	Michael D. Lipscomb	6/27/14	1726
Relinquished by:	Date	Time	Received by:	Date	Time

Laboratory Comments:
Temperature Upon Receipt: 2.2 °C
Bottles Preserved? Y N

Sturm Environmental Services

JOHN W. STURM, PRESIDENT

MICROBIOLOGY

COMPANY: LIPPIZAN PETROLEUM

DATE & TIME SAMPLED:* 06-27-14 1530

SAMPLED BY: D. ROSS / B. MATTHAY

Received
Office of Oil & Gas
OCT 10 2014

DATE & TIME RECEIVED: 06-27-14 1726

ANALYST: SB/JJ

DATE & TIME ANALYZED: 06-27-14 1741

METHOD: 3

SAMPLE ID	TOTAL COLIFORM P/A	E. COLI PA	* DATE/TIME SAMPLED	LOG NO.
WATER SAMPLE	ABSENT	ABSENT	06-27-14 1530	LIPP 140627-1

Microbiological analysis results will be discarded after 5 years
Method of Analysis from "Standard Methods for the Examination of Water and Wastewater,"

1 – Coliform, Fecal (MF) 9222 D
2 – Coliform, Fecal (MPN) COLILERT 18
3 – Coliform, Total (MPN) COLILERT
4 – Coliform, Total (P/A) 9223 B
5 – Heterotrophic Plate Count (HPC) 9215 B

* Client provided

Rick Caller
Approved

**See Attached. The following results meet or exceed requirements and standards set forth by the certifying authority except where noted.

MAIN OFFICE—POST OFFICE BOX 650 • BRIDGEPORT, WEST VIRGINIA 26330 • (304) 623-6549
CHARLESTON BRANCH—POST OFFICE BOX 8337 • SOUTH CHARLESTON, WEST VIRGINIA 25303-0337 • (304) 744-9864

Sturm Environmental Services

JOHN W. STURM, PRESIDENT

COMPANY: LIPPIZAN PETROLEUM

PARAMETER	DATE ANALYZED	ANALYST INITIALS	METHOD	UNITS	MRL	MDL
Antimony			SM22nd 3113 B	mg/L	.0025	.0004
Arsenic	07/01/14	TW	SM22nd 3113 B	mg/L	.005	.0005
Beryllium			SM22nd 3113 B	mg/L	.0005	.0001
Dissolved Beryllium			SM22nd 3113 B	mg/L	.0005	.0001
Cadmium			SM22nd 3113 B	mg/L	.0005	.0001
Dissolved Cadmium			SM22nd 3113 B	mg/L	.0005	.0001
Copper			SM22nd 3113 B	mg/L	.002	.0006
Dissolved Copper			SM22nd 3113 B	mg/L	.002	.0006
Lead			SM22nd 3113 B	mg/L	.005	.0005
Dissolved Lead			SM22nd 3113 B	mg/L	.005	.0005
Silver			SM22nd 3113 B	mg/L	.001	.0002
Dissolved Silver			SM22nd 3113 B	mg/L	.001	.0002
Thallium			SM22nd 3113 B	mg/L	.0025	.0003
Dissolved Thallium			SM22nd 3113 B	mg/L	.0025	.0003
Mercury			EPA 245.1 Rev 3.0-1994	mg/L	.001	.0002
Barium	07/01/14	TW	EPA 200.7 Rev 4.4-1994	mg/L	.05	.002
Beryllium			EPA 200.7 Rev 4.4-1994	mg/L	.05	.001
Dissolved Beryllium			EPA 200.7 Rev 4.4-1994	mg/L	.05	.001
Boron			EPA 200.7 Rev 4.4-1994	mg/L	.05	.03
Cadmium			EPA 200.7 Rev 4.4-1994	mg/L	.05	.001
Dissolved Cadmium			EPA 200.7 Rev 4.4-1994	mg/L	.05	.001
Cobalt			EPA 200.7 Rev 4.4-1994	mg/L	.05	.01
Copper			EPA 200.7 Rev 4.4-1994	mg/L	.05	.003
Dissolved Copper			EPA 200.7 Rev 4.4-1994	mg/L	.05	.003
Molybdenum			EPA 200.7 Rev 4.4-1994	mg/L	.05	.005
Nickel			EPA 200.7 Rev 4.4-1994	mg/L	.05	.005
Potassium			EPA 200.7 Rev 4.4-1994	mg/L	.50	.01
Dissolved Potassium			EPA 200.7 Rev 4.4-1994	mg/L	.50	.01
Silica			EPA 200.7 Rev 4.4-1994	mg/L	.25	.02
Dissolved Silicon			EPA 200.7 Rev 4.4-1994	mg/L	.25	.02
Silver			EPA 200.7 Rev 4.4-1994	mg/L	.02	.001
Dissolved Silver			EPA 200.7 Rev 4.4-1994	mg/L	.02	.001
Strontium			EPA 200.7 Rev 4.4-1994	mg/L	.01	.001
Tin			EPA 200.7 Rev 4.4-1994	mg/L	.05	.005
Titanium			EPA 200.7 Rev 4.4-1994	mg/L	.02	.001
Vanadium			EPA 200.7 Rev 4.4-1994	mg/L	.05	.003
Bromide			EPA 300.0 Rev 2.1-1993	mg/L	.25	.10
Chlorine Residual (AT LAB)			SM22nd 4500CL G	mg/L	1.0	.01
Dissolved Oxygen			SM22nd 4500 O G	mg/L		1
Volatile Suspended Solids			EPA 160.4	mg/L		1
Total Solids			SM22nd 2540 B	mg/L		.01
% Solids			EPA 160.3	mg/L		1.0
Ferrous Iron			SM22 3500 Fe-D	mg/L	.60	.02
Ferric Iron			Calculation	mg/L		.05
Chloride			SM22nd 4500-Cl-E	mg/L	1.0	.25
Nitrite			EPA 353.2 Rev 2.0-1993	mg/L	.05	.004
Nitrate			EPA 353.2 Rev 2.0-1993	mg/L	.05	
Nitrite-Nitrate			EPA 353.2 Rev 2.0-1993	mg/L	.05	.02
Specific Gravity			Calculation	mg/L		
Total Nitrogen			Calculation	mg/L		

EPA-United States Environmental Protection Agency, "Method for the Chemical Analysis of Water and Waste," EPA 600/4-79-020, March 1983.
SM-Standard Methods for the Examination of Water and Wastewater, 22nd Edition. MRL-Minimum Reporting Level, MDL-Method Detection Level

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Office of Oil & Gas
OCT 10 2014

JOHN W. STURM, PRESIDENT

COMPANY: LIPPIZAN PETROLEUM

PARAMETER	DATE ANALYZED	ANALYST INITIALS	METHOD	UNITS	MRL	MDL
pH			SM22nd 4500 HB	S.U	2.0 – 10.0	.1
Hot Acid			SM22nd 2310 B (4a)	mg/L	20.	1
Mineral Acid			SM22nd 2310, Titrimetric	mg/L		1
Alkalinity			SM22nd 2320 B	mg/L	20.	1
NH_3N			SM22nd 4500NH_3B + SM22th 4500 NH_3C	mg/L	10.	.10
Settleable Solids			SM 22nd 2540 F	ml/L		.1
Turbidity			SM22nd 2130 B	NTU	1.	.05
Conductivity			EPA 120.1 Rev-1982	µmhos	20.	1
TKN			SM22nd 4500 N org + SM22nd 4500 NH_3C	mg/L	10.	.10
TSS – Total Suspended Solids (1150)	6-30-14	EK	SM22nd 2540 D	mg/L	50.	4
TDS – Total Dissolved Solids (1150)	6-30-14	EK	SM22nd 2540 C	mg/L	450.	4
Sulfate	6-30-14	AC	EPA 300.0 Rev 2.1-1993	mg/L	1.0 / 10.	1.0
Chloride	6-30-14	AC	EPA 300.0 Rev 2.1-1993	mg/L	.50	.50
Nitrate			EPA 300.0 Rev 2.1-1993	mg/L	.05	.01
Nitrite			EPA 300.0 Rev 2.1-1993	mg/L	.05	.01
Fluoride			EPA 300.0 Rev 2.1-1993	mg/L	.05	.01
Nitrate-Nitrite			EPA 300.0 Rev 2.1-1993+Calc	mg/L		.01
Ortho-Phosphate			EPA 300.0 Rev 2.1-1993	mg/L	.05	.05
Aluminum	07/01/14	TW	EPA 200.7 Rev 4.4-1994	mg/L	.25	.02
Dissolved Aluminum			EPA 200.7 Rev.4.4-1994	mg/L	.25	.02
Calcium	07/01/14	TW	EPA 200.7 Rev 4.4-1994	mg/L	.50	.10
Dissolved Calcium			EPA 200.7 Rev 4.4-1994	mg/L	.50	.10
Chromium			EPA 200.7 Rev 4.4-1994	mg/L	.05	.003
Dissolved Chromium			EPA 200.7 Rev 4.4-1994	mg/L	.05	.003
Hardness (calc)			SM22nd 2340B+EPA 200.7 Rev 4.4-1994	mg/L		1
Iron	07/01/14	TW	EPA 200.7 Rev 4.4-1994	mg/L	.25	.02
Dissolved Iron			EPA 200.7 Rev 4.4-1994	mg/L	.25	.02
Magnesium			EPA 200.7 Rev 4.4-1994	mg/L	.50	.01
Dissolved Magnesium			EPA 200.7 Rev 4.4-1994	mg/L	.50	.01
Manganese			EPA 200.7 Rev 4.4-1994	mg/L	.25	.002
Dissolved Manganese			EPA 200.7 Rev 4.4-1994	mg/L	.25	.002
Sodium			EPA 200.7 Rev 4.4-1994	mg/L	.50	.03
Zinc (ICP)			EPA 200.7 Rev 4.4-1994	mg/L	.05	.004
MBAS	6-30-14	SW	SM22nd 5540C	mg/L	.01	.01
Cyanide			EPA 335.4 Rev 1.0-1993	mg/L	.005	.002
Ortho-Phosphate			SM22nd 4500P B.5 + 4500PE	mg/L	.02	.01
Phenol			EPA 420.4 1983	mg/L	.010	.004
Sulfide			SM22nd 4500 S2 F	mg/L	5.0	.50
Hexavalent Chromium			SM22nd 3500 – Cr-B	mg/L	.02	.007
TPO_4			SM22nd 4500 P E + SM22th 4500 P B.5	mg/L	.02	.010
Oil & Grease			EPA 1664A Gravimetric Extraction	mg/L	5.0	3.0
BOD			SM22nd 5210B	mg/L	3.0	2.0
COD			SM22nd 5220D	mg/L	20	6.0
TOC	6-30-14 (1253)	KC	SM22nd 5310B	mg/L	5.0	1.0
Dissolved Selenium			SM22nd 3113 B	mg/L	.005	.0006
Total Selenium			SM22nd 3113 B	mg/L	.005	.0006
Total Recoverable Selenium			SM22nd 3113 B	mg/L	.005	.0006
Chromium			SM22nd 3113 B	mg/L	.001	.0002
Dissolved Chromium			SM22nd 3113 B	mg/L	.001	.0002
Total Selenium (AFS)			SM22nd 3114B	mg/L	.001	.0006
Total Recoverable Selenium			SM22nd 3114B	mg/L	.001	.0006
Dissolved Selenium			SM22nd 3114B	mg/L	.001	.0006

EPA-United States Environmental Protection Agency, "Method for the Chemical Analysis of Water and Waste," EPA 600/4-79-020, March 1983.
SM-Standard Methods for the Examination of Water and Wastewater, 22nd Edition. MRL-Minimum Reporting Level, MDL-Method Detection Level

Total Coliform 6-27-14 (17[illegible]) SB/JJ

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SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.settek.com

July 11, 2014

Kim
Sturm Environmental Services
P.O.Box 650
Bridgeport, WV 26330
TEL: 304-623-6549
FAX: 304-623-6552

RE: 514143 LIPPIZAN PETROLEUM

Dear Kim: Order No.: 14070284

Summit Environmental Technologies, Inc. received 1 sample(s) on 7/2/2014 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Dr. Mo Osman
Project Manager
3310 Win St.
Cuyahoga Falls, Ohio 44223

CC:
Lori Hiles
Missy Hoops

A2LA 0724.01, Alabama 41600, Arizona AZ0788, Arkansas 88-0735, California 07256CA, Colorado, Connecticut PH-0105, Delaware, Florida NELAC E87688, Georgia E87688 and 943, Idaho OH00923, Illinois 200061 and Reg.5, Indiana C-OH-13, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Louisiana 04061 and LA12004, Maine 2012015, Maryland 339, Massachusetts M-OPH923, Minnesota 409711, Montana CERT0099, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 29705 and 631, Ohio Drinking Water 4170, Ohio VAP CL0052, Oklahoma 9940, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Tennessee TN04010, Texas T104704466-11-5, Region 8 STMS-L, USDA/APHIS P330-11-08244, Utah OH009232011-1, Vermont VT-87688, Virginia 00640 and 1581, Washington C891, West Virginia 248 and 9957C and E87688, Wisconsin 399013010

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OCT 10 2014

SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.setlab.com

Workorder Sample Summary

WO#: 14070284
11-Jul-14

CLIENT: Sturm Environmental Services
Project: 514143 LIPPIZAN PETROLEUM

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
14070284-001	514143		6/27/2014 3:30:00 PM	7/2/2014 8:00:00 PM	Non-Potable Water

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Cuyahoga Falls, Ohio 44223
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Website: http://www.settek.com

Case Narrative

WO#: 14078284
Date: 7/11/2014

CLIENT: Storm Environmental Services
Project: 514143 LIPPIZAN PETROLEUM

This report in its entirety consists of the documents listed below. All documents contain the Summit Environmental Technologies, Inc. Work Order Number assigned to this report.

Paginated Report including: Cover Letter, Case Narrative, Analytical Results, Applicable Quality Control Summary Reports and copies of the Chain of Custody Documents supplied with this sample set.

Concentrations reported with a J flag in the Qual field are values below the Limit of Quantitation (LOQ) but greater than the established Limit of Detection (LOD). There is greater uncertainty associated with these results and data should be considered as estimated.

Method numbers, unless specified as SM (Standard Methods) or ASTM, are EPA methods.

Estimated uncertainty values are available upon request.

Any comments or problems with the analytical events associated with this report are noted below.

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SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: http://www.setlab.com

WO#: 14070284
Date Reported: 7/11/2014
Company: Sturm Environmental Services
Address: P.O.Box 650
Bridgeport WV 26330
Received: 7/2/2014
Project#: 514143

LIPPIZAN PETROLEUM / WATER SAMPLE

Client ID#	Lab ID#	Collected	Analyte	Result	Units	Matrix	Method	DF	MDL	Run	Analyst
514143	001	6/27/2014	Butane	ND	ppm	Non-Potable Water	RSK-175	1	0.010	7/7/2014	AMZ
514143	001	6/27/2014	Ethane	ND	ppm	Non-Potable Water	RSK-175	1	0.010	7/7/2014	AMZ
514143	001	6/27/2014	Methane	ND	ppm	Non-Potable Water	RSK-175	1	0.010	7/7/2014	AMZ
514143	001	6/27/2014	Propane	ND	ppm	Non-Potable Water	RSK-175	1	0.010	7/7/2014	AMZ
514143	001	6/27/2014	TPH-DRO	0.28	mg/L	Non-Potable Water	EPA 8015 C	1	0.092	7/9/2014	AMZ
514143	001	6/27/2014	Oil Range Organics C20-C34	ND	mg/L	Non-Potable Water	EPA 8015 C	1	0.092	7/9/2014	AMZ
514143	001	6/27/2014	TPH-GRO	ND	mg/L	Non-Potable Water	EPA 8015 B	1	0.011	7/3/2014	CLG
514143	001	6/27/2014	Benzene	ND	mg/L	Non-Potable Water	EPA 8260 B	1	0.00020	7/3/2014	MES
514143	001	6/27/2014	Toluene	ND	mg/L	Non-Potable Water	EPA 8260 B	1	0.00017	7/3/2014	MES
514143	001	6/27/2014	Ethylbenzene	ND	mg/L	Non-Potable Water	EPA 8260 B	1	0.00028	7/3/2014	MES
514143	001	6/27/2014	m,p-Xylene	ND	mg/L	Non-Potable Water	EPA 8260 B	1	0.00039	7/3/2014	MES
514143	001	6/27/2014	o-Xylene	ND	mg/L	Non-Potable Water	EPA 8260 B	1	0.00018	7/3/2014	MES

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Summit Environmental Technologies, Inc.
3310 Win Street
Cuyahoga Falls, Ohio 44223 Tel: 330.253.8211 Fax: 330.253.4489

Analysis Request/Chain of Custody

For Summit Environmental Technologies, Inc. use only

Page ____ of ____ SET No.

Company Name (Please Print): Sturm Environmental Services	Project Name:
Company Address: PO Box 650, Bridgeport, WV 26330	Project Address:
Client Phone No.: 304 623-6549	Report to:
Client Fax No. Please Fax Results ✓ ☐	PO#: 6415
Client Email Please Email Results ✓ ☑ mitchell@sturmenvironmental.com	Quote No.: 032012-05
Contact Person: Kim	
Sampled by: D. Ross / B. Matthay	Check if Ohio VAP samples ✓ ☐

Analytical Parameters and Methods

#	Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix S=Solid, L=Liquid, O=Oil, SL=Sludge, A=Air, DW=Drinking Water	Preservative	Number of Containers	BTEX	TPH-GRO, DRO, ORO	Dissolved: Methane	" : Ethane	" : Butane	" : Propane				
	514143	6-27-14	1530	X		L	[illegible]	7	X	X	X	X	X	X				

14070784-001

DRO + ORO Going out of Holding on Friday.

Relinquished by:	Date	Time	Received by:	Date	Time
[illegible]	7-2-14	1829	[illegible]	7/2/14	1835
Received in lab by: [illegible]	7/3/14	1832	Rush Requested By: ____ Date ____ Must be approved by lab manager		

White and yellow pages should accompany samples to the laboratory. The client retains the pink page.

Notes/Comments:
* Results on Separate Sheets Please Could I Please have Results By 7/14/14 thanks

92988

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STURM ENVIRONMENTAL SERVICES

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STURM ENVIRONMENTAL
BRUSHY FORK ROAD
BRIDGEPORT, WV 26330
PHONE: 304-623-6549
FAX: 304-623-6552

STURM ENVIRONMENTAL SERVICES
610 D STREET
SO. CHARLESTON, WV 25303
PHONE: 304-744-9884
FAX: 304-744-7856

MAILING ADDRESSES ARE LISTED BELOW

REPORT TO: Client Name: LIPPIZAN PETROLEUM
Address: PO BOX 98
City/State/Zip: ELLENBORO WV 26346
Contact Person: Bob Matthey
Telephone Number: (304) 869-3448 Fax No. (304) 869-3605
Email Address: Lippizanpetroleum@hotmail.com
Sampler Name: (Print) DAVID ROSS / Bob Matthey
Sampler Signature:
Project Name: WOOD 739 - DUNLAP
Special Reporting: [ ] Email Results [X] Fax Results

BILL TO: Client Name: SAME
Address: PO BOX 98
City/State/Zip: ELLENBORO WV 26346
Contact Person:
Telephone Number: Fax No.
Email Address:
Purchase Order #:
TURN AROUND TIME: Standard
✓ RUSH (pre-scheduled; surcharges may apply) Please Check One
✓ Date Needed July 1st

1 DAY	2 DAY	3 DAY
	X	

Sample ID / Description	COMPOSITE SAMPLE: START DATE	START TIME	END DATE	END TIME	GRAB SAMPLE: DATE	TIME	Ice	PRESERVATIVE: OTHER	HCl	NaOH	H_2SO_4 Plastic	H_2SO_4 Glass	None	HNO_3	MATRIX: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (specify)	ANALYZE FOR: T. COLIF	Al, Al, MGAS, TSS	TDS, SPC	Al, As, Ba, Ca	Fe, Mn	Standard Stuff	See attached	# of Bottles	Flow (gpm, cfs, mgd) circle one	Field pH	Field Conductivity	Field DO	Field Chlorine (mg/L or ug/L) circle one	Field Temp (F° or C°) circle one	
WPrisL SAMPLE	6-27	3:15	6-27	3:35				X					X	X							X	X	X	X	X		X									

Comments

Records retained for 5 years

Relinquished by	Date	Time	Received by	Date	Time
Bob Matthey	6-27-14	1720	Michael A. Lipscomb	6/27/14	17:26
Relinquished by	Date	Time	Received by	Date	Time

Laboratory Comments
Temperature Upon Receipt: 1.2 °C
Bottles Preserved? Y N

Lippizan Petroleum, Inc. #739 Hess Disposal Well

Section 8 - Geological Data on the Injection & Confining Zone:

There are a series of small anticlinal and synclinal structures that are present in the Berea Horizon in this area of Wood Co.,WV. The structurally low areas or synclinal areas are salt water bearing. :ippizan's disposal well is gravity injecting brine water back into the Berea formation. The Berea is an ancient Mississippian River Channel Sand trending essentially in a SW toNE direction, and is the oil and gas reservoir for the large Murphytown field. Since the drilling of many of these Berea wells was priot to 1929, very few recorded records are available to the public. In the area of Wood County, #739 has an average thickness of 3 to 10 feet of primary intergranular porosity.

Geological structure maps using the top of the Berea Sand as a mapping datum reveal no presence of faulting from tectonic movement in the area nor earthquakes caused by fluid injection in any horizon in this area. Since the operation is gravity disposing of small amounts of brine fluid each year in the disposal well, there is essentially no way this disposal operation could cause earthquakes due to low injection rates and small volumes of brine. Several Pennsylvanian Cow Run Sand oil wells that are located in close proximity to Wood Co #739 Berea Disposal Well. These wells are only 900 to 1200 feet deep and have no bearing on the disposal of brine in the Berea Sand.

The injection zone (Berea Sand) is a gray to white coarse-grained channell sandstone. The matrix material of the sand or binding material is a kaolinite clay with minor amounts of illite clay and biotite mica. Normally, the Berea Sand in this area has a hard cap rock of 1 to 2 feet of well cemented non-porous sand at the top and bottom of the Berea. Normally, wells in this area have 4 to 6 feet of primary intergranular porosities, ranging from 10 to 15%.

As described above, the Berea injection zone has a carbonaceious shale (Sunbury) immediately above the injection zone with argillaceous shale and siltstone stringers below the injection zone. Above the Sunbury Shale, there is an average of 200 to 250 feet of dark gray argillacious shale with interbedded siltstone. Our well has 239 feet of shale above the Berea.

Berea as the Confining Zone - As can be noted on Berea Sandstone Structure Map, the proposed injection of brine water is in a Northeasterly direction, essentially following the path of the syncline axis and area of thickest Berea Sand deposition.

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JUL 0 2 2014
WV Department of
Environmental Protection

Due to the small amount of brine disposal on an annual basis, there is no possibility of earthquakes being caused by gravity injection method being used by the operation of this well.

Section 8 - continued....

None of the residents in the AOR are using wellwater for their water requirement usage. Claywood Public Service District provides and supplies all of the local households with water.

The injected fluids are completely compatible with formation fluids. These are natural brines being injected in Berea from Big Injun and Squaw wells.

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Section 8 - a,b,c,d

The injection zone (Berea Sand) is a gray to white coarse grained channel sandstone. The matrix material or binding material of the sand is a kaolinite clay with mixed amounts of illite clay and biotite mica. Normally, the Berea Sandstone in this area is 4 to 12 feet thick with 2 to 8 feet of intergranular porosities ranging from 10 to 15%. Normally this reservoir is considered a tight gas or oil sand and requires shooting or fracturing to enable the formation to produce commercial quantities of oil and gas.

As an indication of the hydraulic conductivity of the Berea Sandstone, normally the formation is broken down though perforations at approximately 2000 to 2500 psi B.D.P. and stimulated with 500 bbls water and 20,000 lbs. of sand.

An isopach map of the Confining Zone reveals that the zone is composed of the Mississippian Sunbury Shale (15') and an additional zone above the Sunbury Shale of dark gray argillaceous shale with a scattering of siltstone interbeds. The entire Confining Zone has an average thickness of 231' throughtout the area. There is limited log data in the Confining Zone to fully define the thickness of the zone. The author has used two Geophysical logs W00-1079 and WOO-1071 and the driller's log for WOO-739 to calculate the thickness of the Confining Zone.

The attached isopach map for the Confining Zone reveals the author's interpretation of the date.

Also included are additional maps, some of which had been provided Previously.

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OCT 10 2014

8-e

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OCT 10 2014

COMPANY: LIPPIZAN PETROLEUM, INC.

DATE/TIME SAMPLED:* 09-30-14 1130

SAMPLE ID:

DATE/TIME RECEIVED: 09-30-14 1238

SAMPLED BY: D. ROSS / B. MATHEY

LABORATORY ID: LIPP 140930-1

SAMPLE ID	pH units	Fe mg/L	TDS mg/L	Cl^- mg/L	TOC mg/L	SPEC. GRAVITY calc.
	4.2	821.	99560	69300.		1.0725

*Client Provided
**See Attached. The following results meet or exceed requirements and standards set forth by the certifying authority except where noted.

PRELIMINARY RESULTS

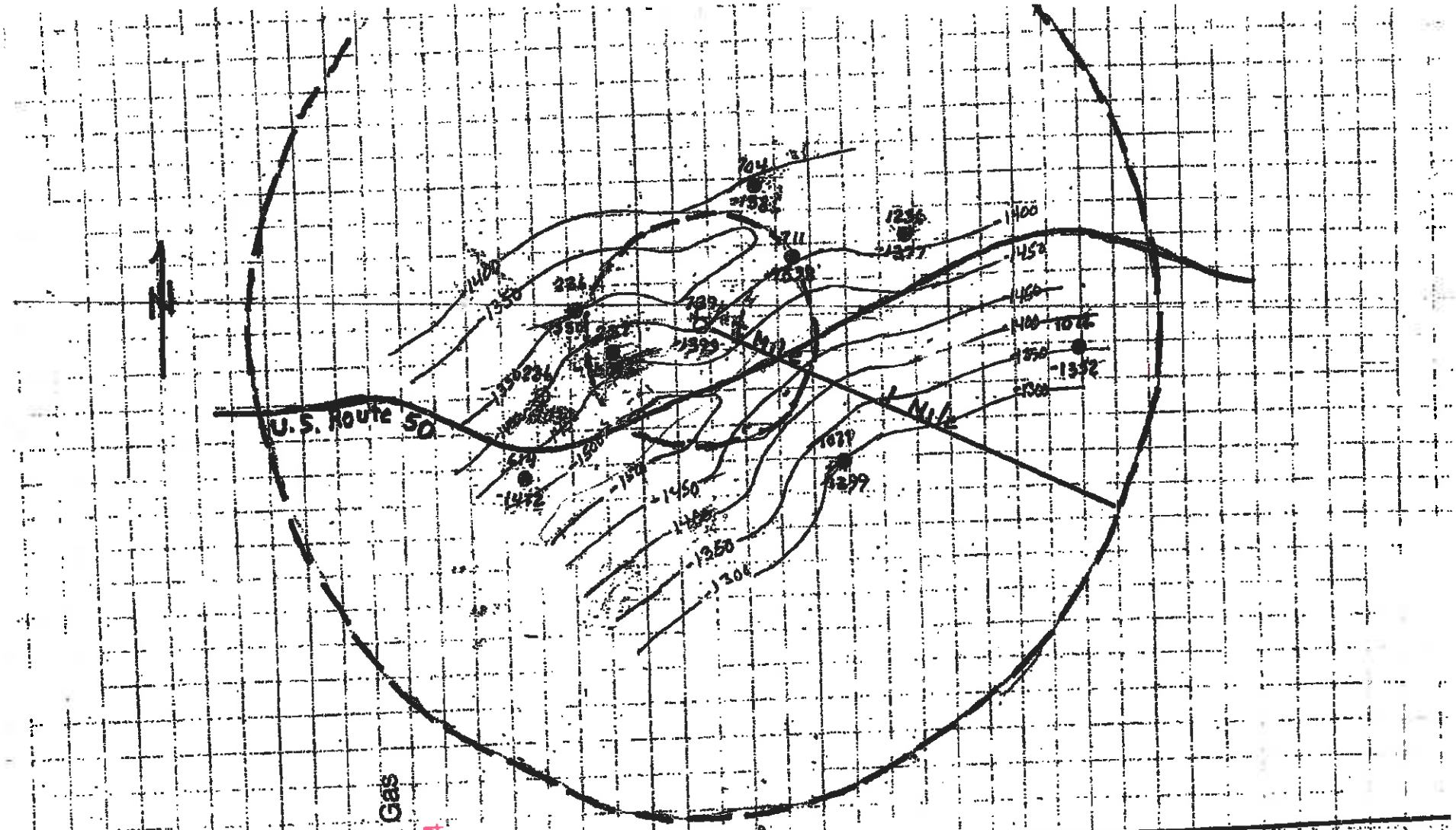

Figure 2
BEREA SAND STRUCTURE M
DATUM: Top of Berea Sand
Contour Interval - 50 Feet
Scale: 1" = 1200'

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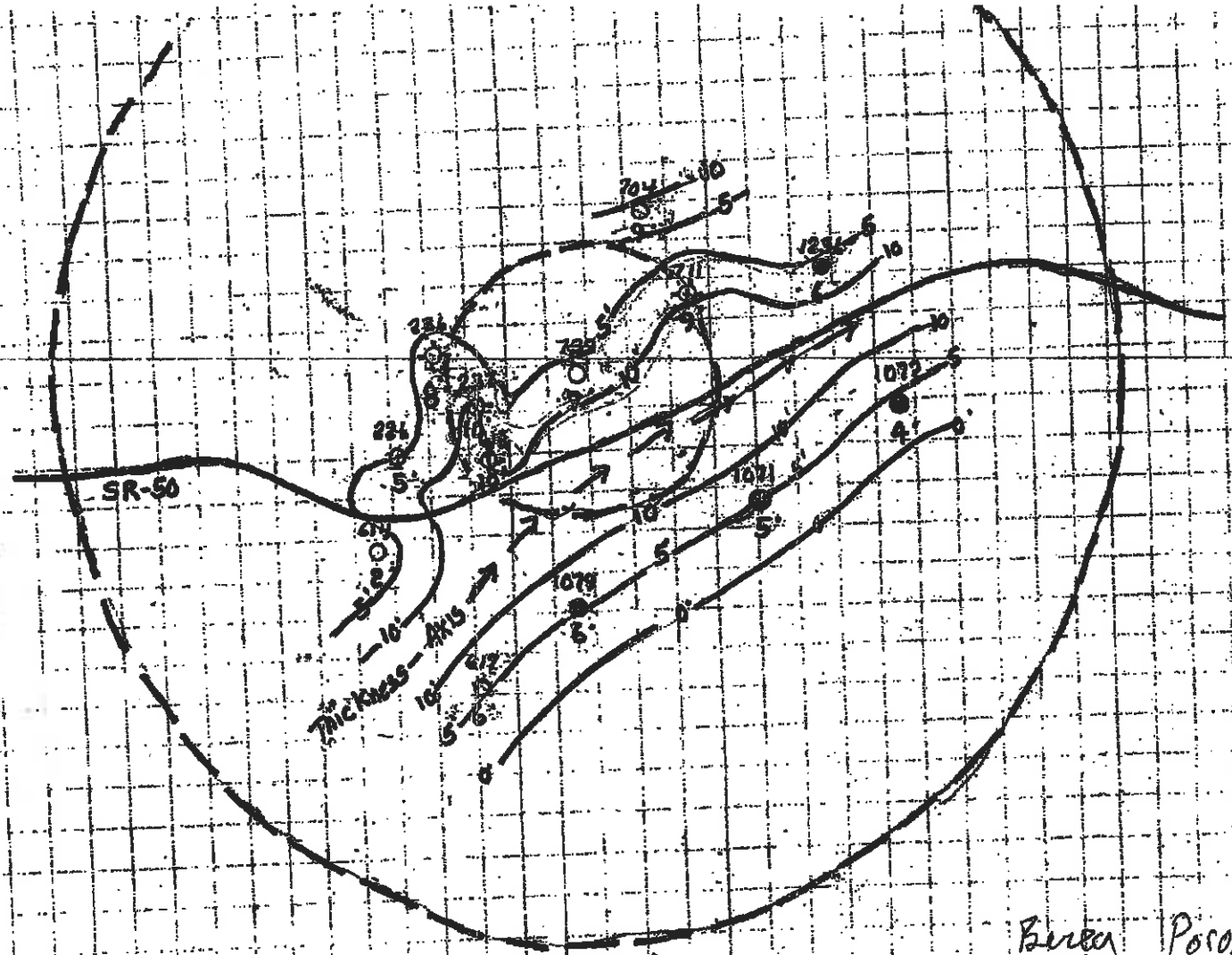

Berea Porosity Isopach

Figure —
Berea Sand Φ Isopach Map
C.I. = 5 feet
SCALE: 1" = 1200'

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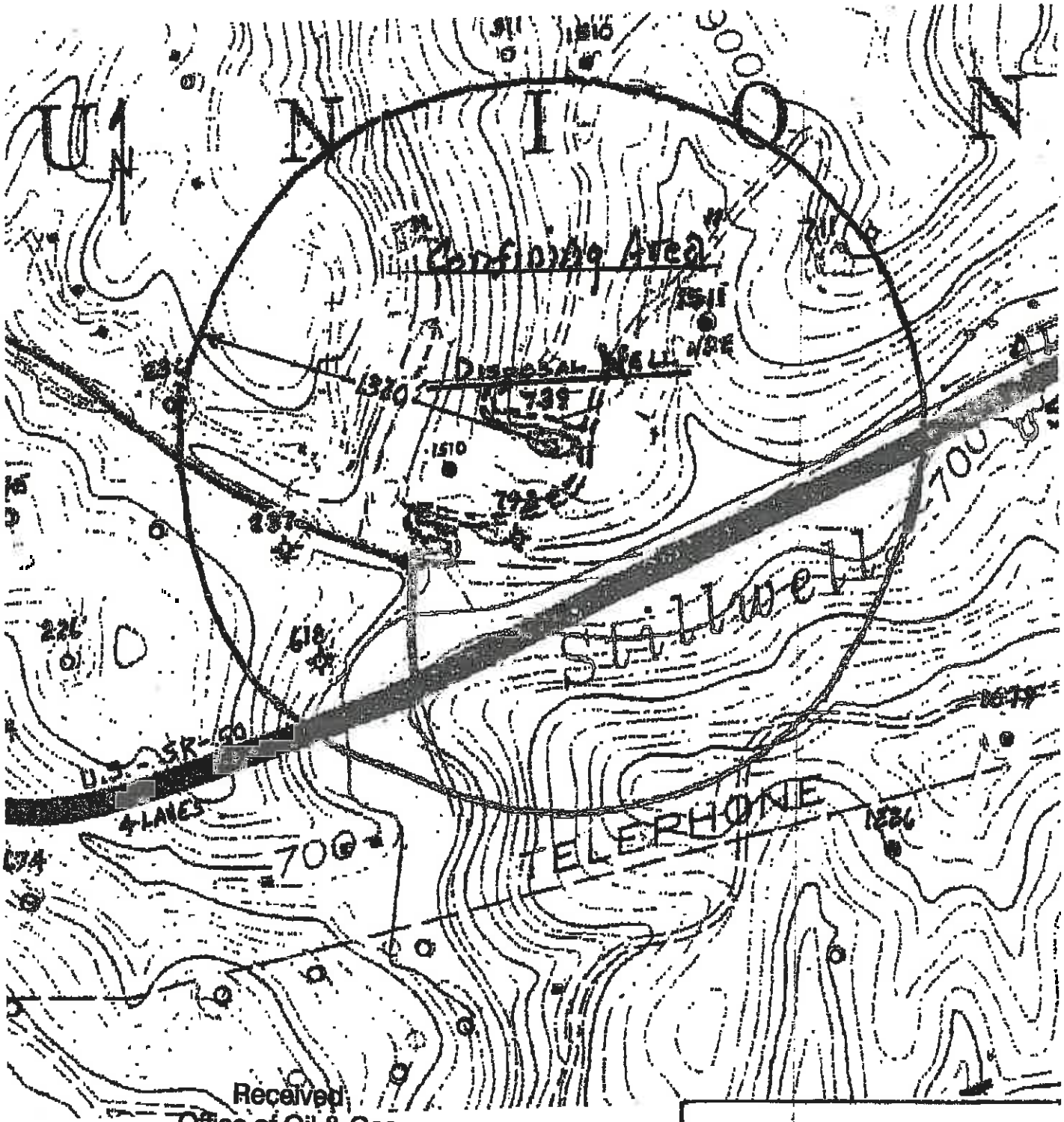

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LIPPIZAN PETROLEUM

Confining Area
W00-739 Disposal Well
Union District
Wood County, WV

SCALE: 1" = 343' Prepared: BAP

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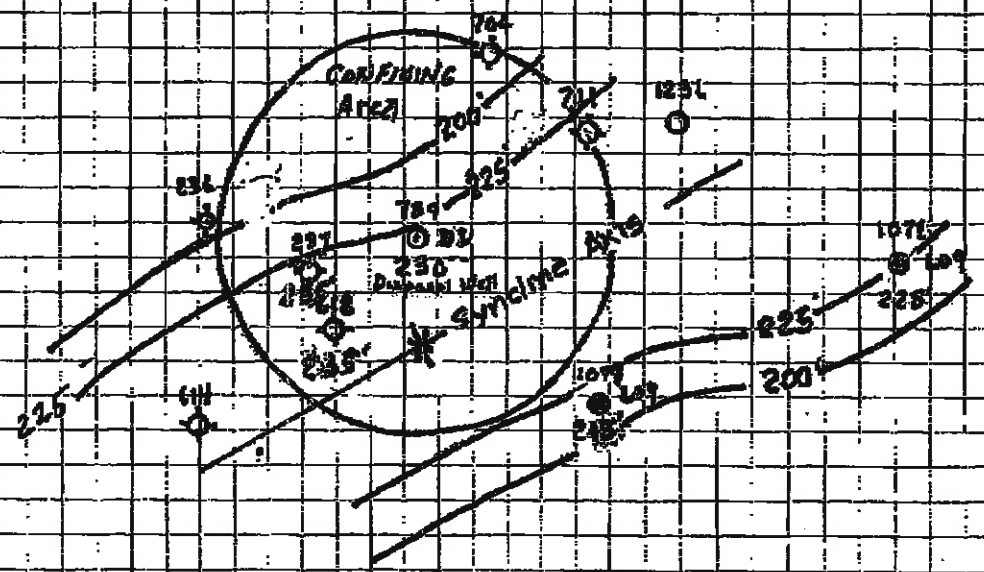

Figure _

Confining Area Isopach

C.I. = 25'

SCALE = 1" = 1200'

District

Wood County, W. Va

Scale: 1" = 200'

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Figure –

CONFINING ZONES FOR DISPOSAL PURPOSES

Vertical Scale: 1" = 200'

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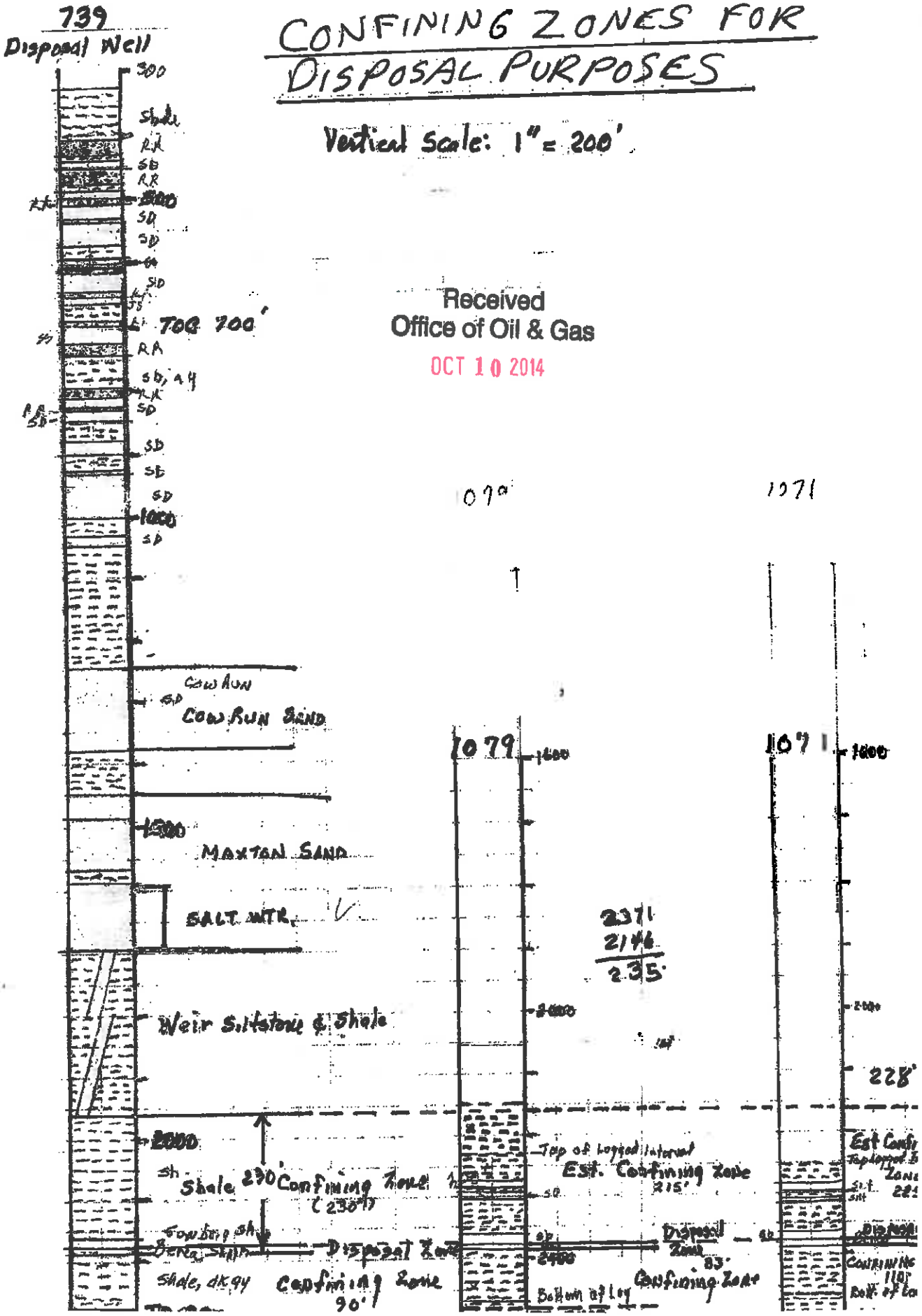

FILING NO.

PERMIT NO. 47-107-1071

COMPANY CLINT HURT & ASSOCIATES, INC.

WELL J. G. ROBINSON NO. 2

FIELD LOST RUN

COUNTY WOOD STATE W. VA.

Location: QUADRANGLE: KANAWHA

Sec. Twp. Rge.

Other Services: NONE

Permanent Datum: GL ; Elev.: 1020

Log Measured From KB 8.0 Ft. Above Perm. Datum

Drilling Measured From GL

Elev.: K.B. 1028 D.F. 1028 G.L. 1020

Date	11/2/80		
Run No.	ONE		
Type Log	CDL		
Depth—Driller	2545		
Depth—Logger	2536		
Bottom logged interval	2536		
Top logged interval	2100		
Type fluid in hole	WATER		
Salinity, PPM Cl.	--		
Density	---		
Level	--		
Max rec. temp., deg F.	--		
Operating rig time	4-HOUR		
Recorded by	CHAMBERLIN		
Witnessed by	MR. BARTMAN		

Run No.	Bit	Bore-Hole Record From	To	Casing Record Size	Wgt.	From	To
ONE	10	SURFACE	262	8 5/8	22	SURFACE	262
ONE	7 7/8	262	2545				

THIS HEADING AND LOG CONFORMS TO API RP 33

FOLD HERE

Equipment Data

Run No.	Tool No.	Source No.	Panel No.	Logging Unit	Location
ONE	2154	CSV 383	--	7033	VIENNA

Calibration Data

Run No.	API Scale	Gamma Ray Background CPS	Gamma Ray Std. CPS	CDL Ds CPS AT	2.0	3.0	Ds CPS AT	2.0

Logging Data

Run No.	Depths From	To	Speed Ft./Min	GR TC
ONE	2536	2100	18	3

Remarks:

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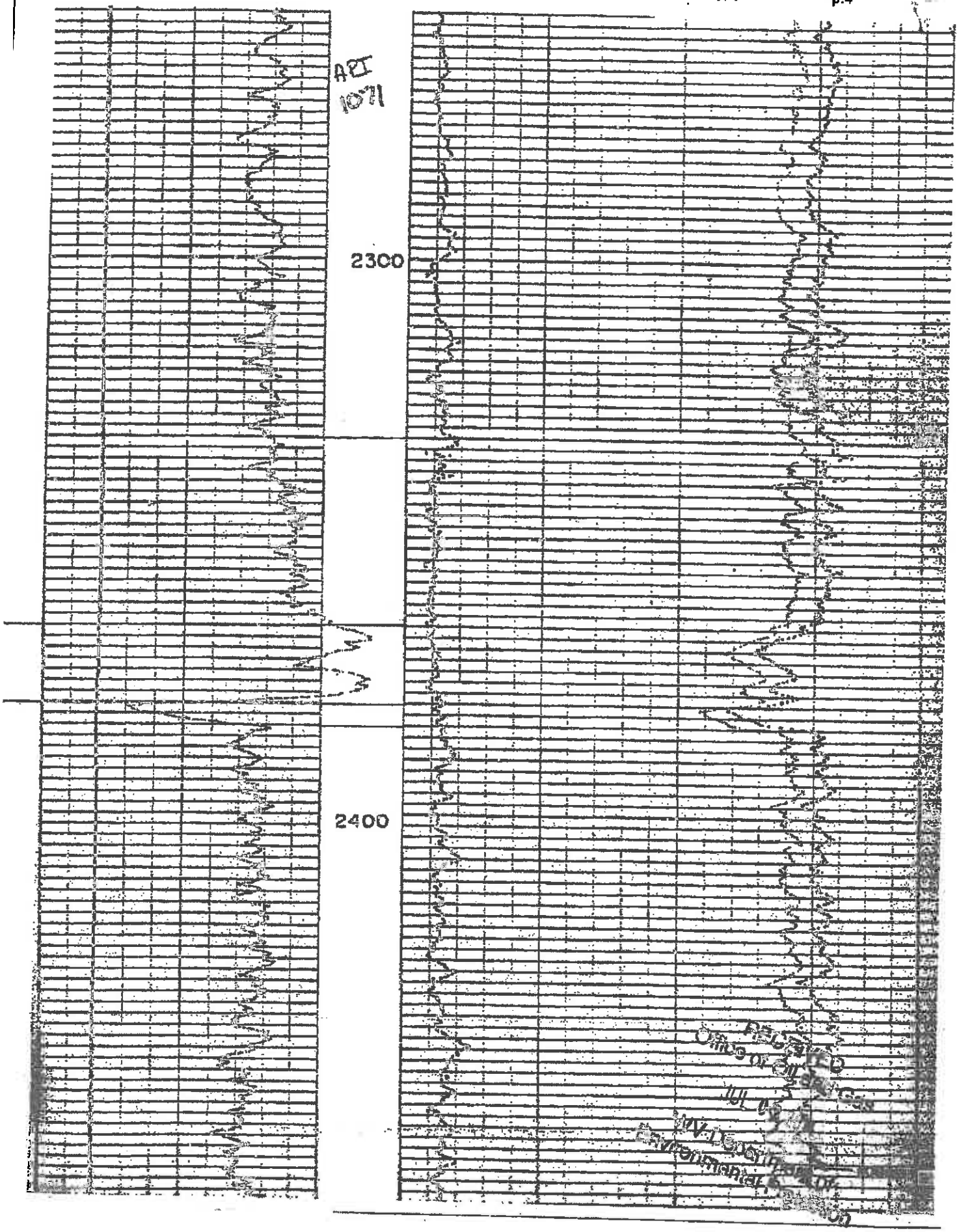
GAMMA RAY | DEN | BULK DENSITY



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GEARHART-OWEN

NEUTRON LOG

FILING NO. Permit No. 1079

COMPANY CLINT MINE / Associates

WELL J. G. ROBINSON #

FIELD

COUNTY Wood STATE WVA

Location: Walker & Lostrand Quad: Kanawha Dist: Walker Twp. Rge.

Sec.

Other Services: NA GR Caliper Log

Permanent Datum: GL ; Elev.: 20'

Log Measured From GL Ft. Above Perm. Datum

Drilling Measured From KB

Elev.: K.B. 1087 D.F. 1087 G.L. 1080

Date	11-5-80
Run No.	one
Type Log	CDL - GRL CL
Depth—Driller	2445
Depth—Logger	2469
Bottom logged interval	2466
Top logged interval	2000
Type fluid in hole	H2O
Salinity, PPM Cl. or Necl.	NA
Density ;Rm at °F	NA
Level Full ; Contact	
Max. rec. temp., deg F.	NA
Operating rig time	1 HR
Recorded by	L. Lucas
Witnessed by	Mr. Burton

Bore-Hole Record

Run No.	Bit	From	To
one	7 7/8	278	2468

Casing Record

Size	Wgt.	From	To
	8 3/4	0	278

FOLD HERE

THIS HEADING AND LOG CONFORMS TO API RP 23

EQUIPMENT DATA

Run No.	Tool No.	Source No.	Panel No.	Logging Unit	Location

DENSITY CALIBRATION DATA

SS CPS AT	2.0	3.0	LS CPS AT	2.0	3.0

CALIBRATION DATA

RUN NO.	GAMMA RAY API Scale	GAMMA RAY SKG CPS	GAMMA RAY CAL. CPS	NEUTRON API Scale	NEUTRON SKG CPS	NEUTRON CAL. CPS

Run No. Gamma Ray	
Tool Model No.	
Diameter	
Detector Model No.	
Type ;Length	
Distance to N. Source	

Run No. Neutron	One
Source Serial No.	H175
Tool Model No. ;Type	5113
Diameter ;Spacing	16"
Det. Mod. No. ;Type	[illegible]
Source Type ;STG	[illegible]

LOGGING DATA

RUN NO.	GENERAL DEPTHS From	GENERAL DEPTHS To	Speed Ft/Min.	GAMMA-RAY T.C. Sec.	GAMMA-RAY Sens Setting	GAMMA-RAY Zero Div. L or R	GAMMA-RAY API GR Units Per Log Div.	NEUTRON T.C. Sec.	NEUTRON Sens Settings	NEUTRON Zero Div. L or R	NEUTRON API Per
one	2466	2000									

REMARKS

FIELD PRINT

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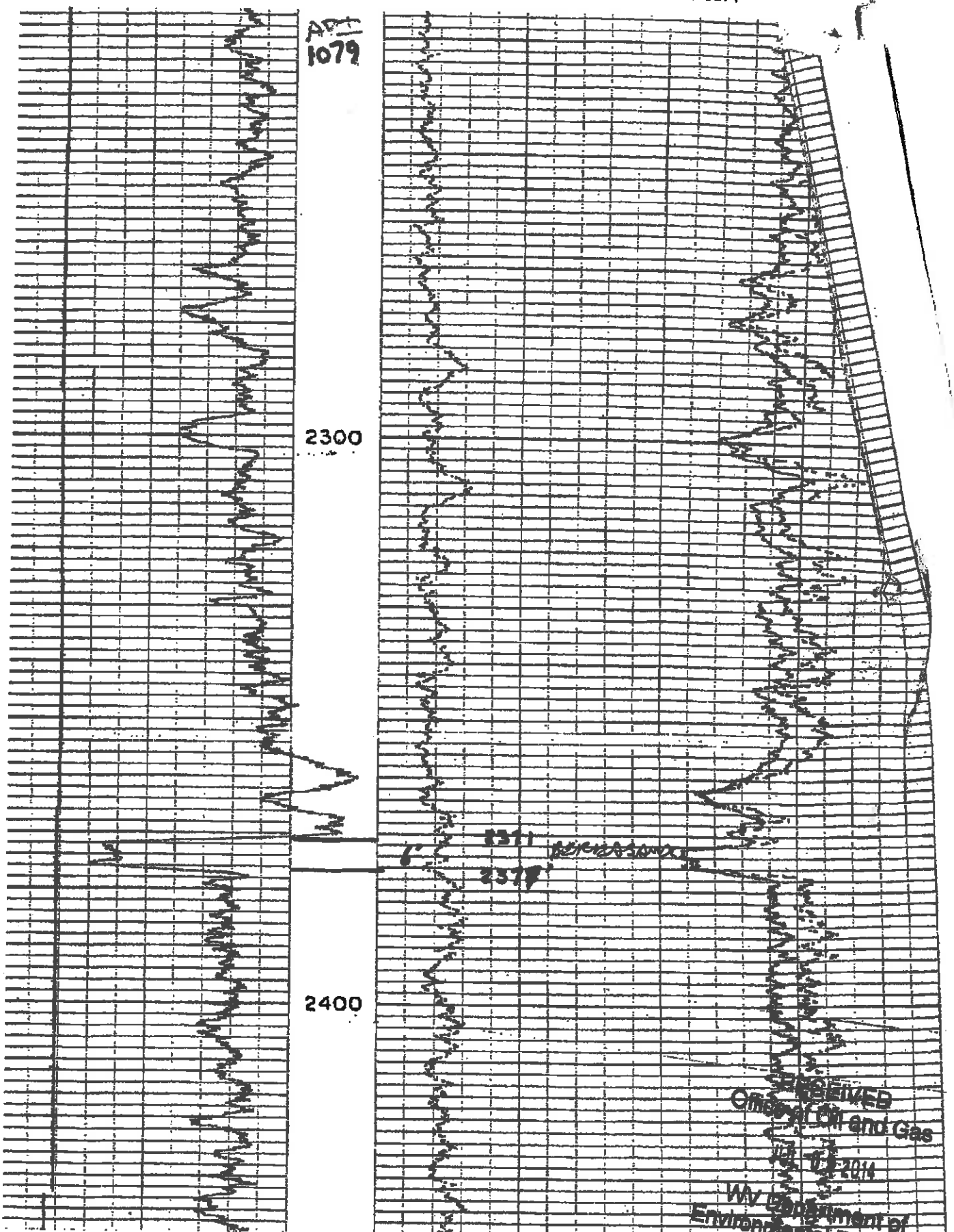
WV Department of Environmental Protection

GAMMA RAY | SH. | BULK DENSITY

Jun 20 14 03:39p Hackett 304-623-6571



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SECTION 9

a. Average daily rate of volume of fluid would be 10 barrels a day

b. Maximum daily rate of volume of fluid to be injected is 20 bbl/day

c. Average injection pressure will be 0 pressure at the top of the hole

d. Maximum injedtion pressure would be approximately 990 lbs with the tubing full

2. See Appendix G - attached

3. Chemical Analysis Pending

4. No additives

5. Annulus fluid is fresh water with no additives

6. Contingency Plan - In event of well failure, well be immediately shut in and notification will be made to WV DEP. If storage tank failure, will protect ground-water by secondary containment Tanks will be emptied and taken to the nearest commercial disposal well, which is currently Greenhuner in Ellenboro, WV. We have two vacuum trucks available for use in case of emergency and also have BD Oil in Marietta, OH as a backup.

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APPENDIX G

Wells Serviced by Injection Wells

API #	Operator	Producing Formation
073-01117	Trippizan Petroleum,Inc	Big Injun
073-02538	Same	Pocon Sand
085-03639	Same	Big Injun
085-03640	Same	Big Injun
085-05800	Same	Big Injun
085-04422	Same	Squaw
085-04423	Same	Squaw
085-04428	Same	Big Injun
085-04429	Same	Big Injun
085-04448	Same	Big Injun
085-05477	Same	Big Injun
105-00246	Same	Big Injun Squaw
105-00308	Same	Big Injun
105-00280	Same	Big Injun
105-00269	Same	Big Injun
105-00264	Same	Big Injun
105-00256	Same	Big Injun Squaw
105-00305	Same	Big Injun Squaw
105-00314	Same	Big Injun Squaw
107-00002	Same	Berea
107-00028	Same	Berea

Make as many copies as necessary and include page numbers as appropriate.

Promoting a healthy environment.

SECTION 10

1. Since we have only one disposal well, the welltender will check the well pressures and fluid tank levels twice a week.

2. We already have forms for our vacuum truckdriver to use to keep track of brine water, when and where picked up, and API no of well where brine water came from

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LIPPIZAN PETROLEUM, INC.
P O Box 98
Ellenboro, WV 26346

#739 HESS DISPOSAL WELL

Brine Transportation Co. _____

Address _____

City, State,Zip _____

Driver _____

Pickup Date:_____ Pickup Time:_____

ORGIN OF BRINE

OWNER_____

COUNTY_____ STATE_____

Lease Name _____Permit #_____

VOLUME COLLECTED REMARKS

_____bbls BRINE

Disposal Date_____Disposal Time_____

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WV Department of
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SECTION 10

1. Since we have only one disposal well, the welltender will check the well pressures and fluid tank levels twice a week.

2. We already have forms for our vacuum truckdriver to use to keep track of brine water, when and where picked up, and API no of well where brine water came from

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Section 10 Monitoring B - Brine water will be measured by a barrel (or flow) meter before fluid is gravity fed into the well.

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APPENDIX H

GROUNDWATER PROTECTION PLAN

Facility Name: Lippizan Petroleum, Inc. #739 Hess Disposal Well

County: Wood

Facility Location:

Postal Service Address:	1835 Montgomery Hill Rd., Walker, WV 26180	
Latitude and Longitude:	Northing: 4343976	Easting: 465564

Contact Information:

Person:	Robert L. Matthey, Jr.
Phone Number:	304-869-3418
E-mail Address:	lippizanpetroleum@yahoo.com

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Date: 06/26/14

1. A list of all operations that may contaminate the groundwater.

Brine water tank failure
Valve or pipeline failure
Unloading or loading brine into vacuum truck or storage tank

2. A description of procedures and facilities used to protect groundwater quality from the list of potential contaminant sources above.

Brine water tank failure is protected by secondary containment. Regular documented inspection every 2 months of valve, fittings, and pipe. Unloading of vacuum truck is above storage tank and secondary containment. If failure occurs, secondary containment will catch brine water.

3. List procedures to be used when designing and adding new equipment or operations.

Shut down facility. For prevention, inspecting all pipeline, valves, fittings, gauges, other hardware, and secondary containment every 2 months. Document the findings; update GPP. Check any equipment showing wear and replace, if needed. Checking secondary containment area; make sure impervious. Repair if needed.

4. Summarize all activities at your facility that are already regulated for groundwater protection.

The storage tank and secondary containment area are regulated by the USEPA and our SPCC (Spill Prevention Control and Countermeasures) plans.

5. Discuss any existing groundwater quality data for your facility or an adjacent property.

This area is supplied with water from Claywood PSD and we have not found any water wells within the area of review. There is no groundwater monitoring data available for this site.

6. Provide a statement that no waste material will be used for deicing or fill material on the property unless allowed by another rule.

There shall be no waste material used for deicing fill, or any other use on this facility or location.

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

All employees shall receive training on prevention and steps to protect the groundwater and documented. Refresher training will be given once a year. Special training will be given to employee responsible for this facility and what is necessary on how to prevent ground water contamination. Emphasis will be given in protecting the groundwaters of the State. Further instruction will be given on spill cleanup, notification and documentation.

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8. Include provisions for inspections of all GPP elements and equipment. Inspections must be made quarterly at a minimum.

Every 2 months all tanks, fpipes, fittings & valves will be inspected for wear and leaks. Any questionable equipment will be reapired; secondary containment will be checked. All manifest for brine water will be kept current and pressures checked regularly. All will be documented.

Signature: [signature]

Date: June 25, 2014

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SECTION 12

PLUGGING OF WOO-739

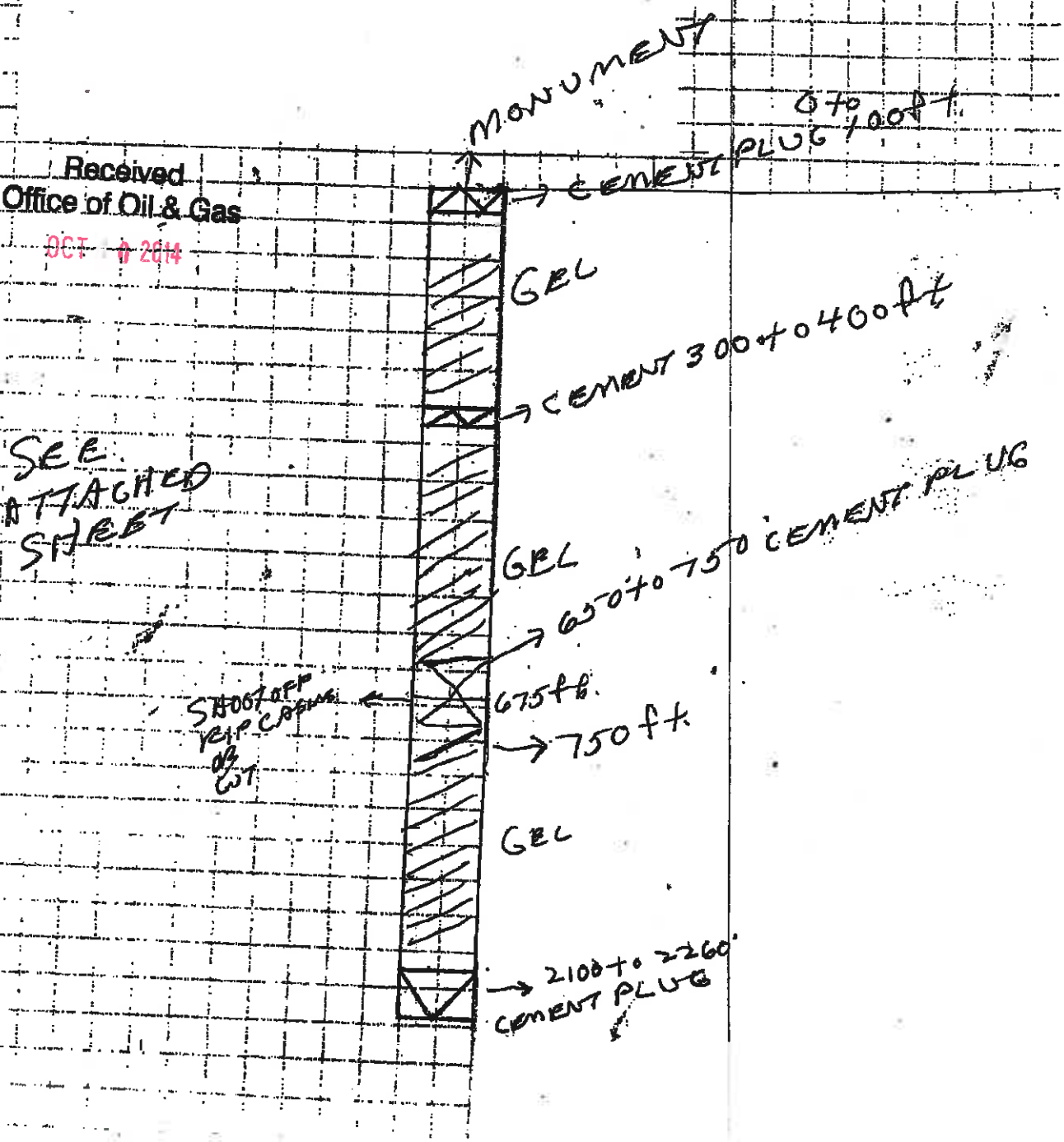
1. Run tubing to 2100'
2. Spot cement (33 sacks) from 2100' to 2260'
3. Pull tubing up to 700'. Spot 6% gel
4. Pull tubing up to 750'
5. Estimate top of cement at 700'
6. Pull tubing
7. Either shoot, cut, or rip 4½" casing around 675' to 700'

7a Pull 4½" casing

8. Run tubing back to 650'
9. Spot 20 sacks of cement from 650' to 750'
10. Pull tubing up to 300'
11. Spot 6% gel up to 375'
12. Sport cement from 300' to 400' (20 sacks)
13. Pull tubing up to 100'. Spot more gel up to 100'
14. Pull tubing
15. Run cement from 0' to 100'
16. Place monument on top according to WV DEP requirement

PLUGGING OF WOO-739

BOTTOM OF 4 1/2 @ 2266
PERFORATED - 2182 - 2180 ft
SALTWATER - 1797
FRESHWATER - 1200 ft
T.D - 2280'



SEE ATTACHED SHEET

SHOOT OFF RIP CASING OR CUT

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APPENDIX I

Requirement for Financial Responsibility to Plug/Abandon an Injection Well

To: WV Department of Environmental Protection
Office of Oil and Gas
601 57th Street, SE
Charleston, West Virginia 25304-2345
ATTN: Underground Injection Control Program

From: LIPPIZAN PETROLEUM, INC
PO BOX 98
ELLENBOROW WV 26346
Robert Matthey JR. VICE PRESIDENT

Received
Office of Oil & Gas
OCT 10 2014

Date: 6-25-14

Subject: Underground Injection Control (UIC) Permit Application
2010707 39
Requirement for Financial Responsibility

I, Robert L Matthey Jr. verify in accordance with 47CSR13-13.7.g., that I will maintain financial responsibility and resources to close, plug, and abandon underground injection wells(s) in a manner prescribed by the Chief of the Office of Oil and Gas.

Name: Robert L. Matthey Jr. VICE PRES

Signature: [signature]

Date: June 25, 2014

(4/25)

APPENDIX J

Site Security for Commercial Facilities

Provide a detailed description of the method(s) utilized at the facility to restrict or prohibit illegal dumping of unauthorized waste or vandalism at the facility.

1. Complete enclosure of all wells, holding tank/pits and manifold assemblies within a chain link or other suitable fencing; and

2. Require that all gates and other entry points be locked when the facility is unattended; or

3. Providing tamper-proof seals for the master valve on each well (a "lock-out" or chain & padlock system would be more secure; however, these devices could create a potential safety hazard if the well needed to be quickly shut in due to an emergency); and

4. Installing locking caps on all valves and connections on holding tanks, unloading racks, and headers.

Locking valves will be placed on well and on storage tank.

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APPENDIX K

Identify permit or construction approvals received or applied for under the following programs:

Permit/approvals	ID Number
Hazardous Waste Management Program under RCRA	
NPDES Program	
Prevention of Significant Deterioration (PSD)	
Nonattainment Program	
Dredge or Fill	
NPDES/NPDES – Stormwater	
WVDEP – Office of Waste Management (OWM) – Solid Waste Facility	
WVDEP – OWM – RCRA (Hazardous Waste TSD or Transporter)	
WVDEP – OWM – UST	
CERCLA – Superfund	
WV Voluntary Remediation – Brownfields	
FIFRA – Federal Insecticide, Fungicide and Rodenticide Act	
Well Head Protection Program (WHPP)	
Underground Injection Control (UIC)	2010070139
Toxic Substances Control Act (TSCA)	
Best Management Plans	
Management of Used Oil	
Other Relevant Permits (Specify):	