west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Earl Ray Tomblin , Governor
Randy C. Huffman , Cabinet Secretary
www.dep.wv.gov

Wednesday, September 14, 2016
WELL WORK PERMIT
Vertical / Plugging

CABOT OIL & GAS CORPORATION
2000 PARK LANE, SUITE 300

PITTSBURGH, PA 15275

Re: Permit approval for 1
47-109-00730-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

Operator's Well Number: 1
Farm Name: MORGAN, R.
U.S. WELL NUMBER: 47-109-00730-00-00
Vertical / Plugging
Date Issued: 9/14/2016

10900730P

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.

2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.

3. Well work activities shall not constitute a hazard to the safety of persons.

10900730 P

WW-4B
Rev. 2/01

1) Date August 8, 2016
2) Operator's Well No. R.E. Morgan #1
3) API Well No. 47-109-00730

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ____/ Gas X / Liquid injection ____/ Waste disposal ____/
(If "Gas, Production X or Underground storage ____) Deep ____/ Shallow X

5) Location: Elevation 1,305.12' Watershed Brier Creek of Indian Creek
District Baileysville County Wyoming Quadrangle Baileysville

6) Well Operator Cabot Oil & Gas Corporation
Address 2000 Park Lane, Suite 300
Charleston, WV 15275

7) Designated Agent Phillip Hill - Cabot Oil & Gas Corporation
Address 900 Lee Street East, Suite 1500
Charleston, WV 25301

8) Oil and Gas Inspector to be notified
Name Brian Ferguson
Address 708 Manor Drive
Beckley, WV 25801

9) Plugging Contractor
Name Contractor Services, Inc.
Address 929 Charleston, Road
Spencer, WV 25276

10) Work Order: The work order for the manner of plugging this well is as follows:

See Attached Sheet

OK

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Brian Ferguson Verbal Date

10900730P

R. E. Morgan #1
API # 47 - 109 - 00730
PLUGGING PROCEDURE

Current Configuration

ELEV. 1439'

DTD @ 3720'
13 $^{3}/_{8}$" conductor @ 38' KB cemented to surface
8 $^{5}/_{8}$" — 20# casing @ 1248' KB, cemented w/ 204 sx pozmix & 100 sx neat
4 $^{1}/_{2}$" – 9.5# - K-55 casing @ 3700' KB w/ TOC @ 2990'
2 $^{3}/_{8}$" – 4.6# tubing @ 3587' KB
Berea perforations: 3583' – 3598'
Big Lime formation: 2443' – 2964' (not perforated)
Upper Maxton formation: 1824' – 1912' (not perforated)
Ravencliff formation: 1444' – 1502' (not perforated)
Coal @ 184' – 188'
Fresh water @ 65' & 325'

PROCEDURE

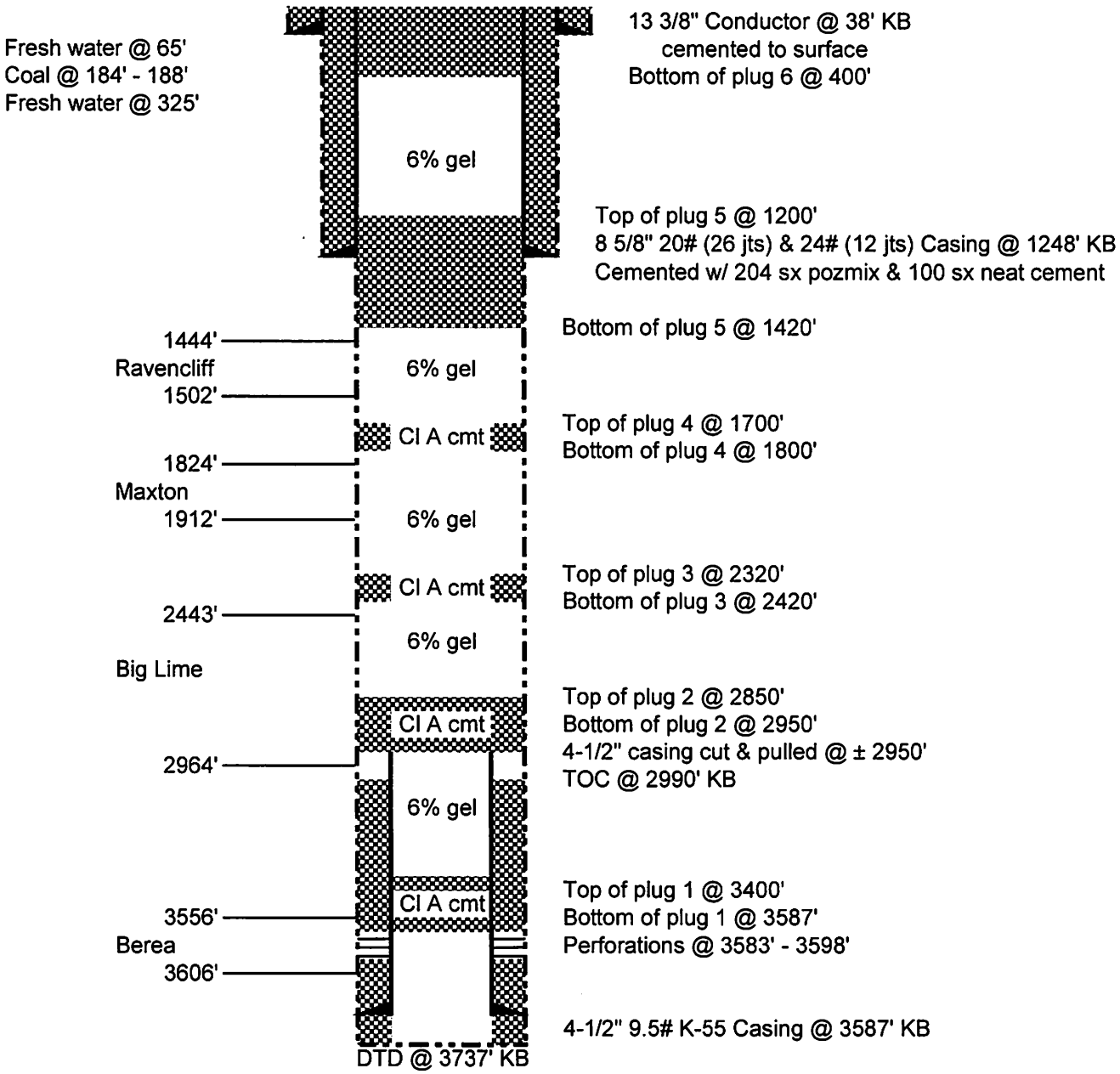
1. Contact Pineville District Office a minimum of 48 hours prior to starting work
2. Contact state inspector a minimum of 24 hours prior to starting work.
3. MIRU service rig and blow down well.
4. Lay 2" line from wellhead to pit/tank and stake down securely. Vent 4 $^{1}/_{2}$" x 8 $^{5}/_{8}$" annulus.
5. Unpack wellhead and ensure tubing is free and can be pulled.
6. Run rig tools to determine well TD and note any fluid level.
7. MIRU Cementing Company.
8. Pump 10 barrels of 6% Gel.
9. Pump 15 sacks of Class A cement for cement plug 1 from 3587' to 3400'.
10. Displace with 13 bbls of 6% Gel.
11. POOH with tubing and let cement plug set for a minimum of eight hours.
12. Run freepoint and cut 4 ½" casing where free. Estimate ±2950'. Pick up casing 1 jt and pump 20 bbls 6% gel.
13. Pump 30 sacks Class A cement for cement plug 2 from 2950' to 2850'.
14. Displace with 46 bbls of 6% Gel.
15. Pull casing to 2420' and pump 30 sacks Class A cement for cement plug 3 from 2420' to 2320'.
16. Displace with 37 ½ bbls of 6% Gel.
17. Pull casing up to 1800' and pump 30 sacks of Class A cement for cement plug 4 from 1800' 1700'.
18. Displace with 20 ½ bbls of 6% Gel.
19. Pull casing up to 1420' and pump 85 sacks of Class A cement for cement plug 5 from 1420' 1150'.
20. Displace with 18 ½ bbls of 6% Gel.
21. Pull casing up to 400' and pump 124 sacks of Class A cement for cement plug 6 from 400' to surface.
22. TOOH with casing and lay down.
23. RDMO Cement company
24. Erect Monument according to Law.
25. RDMO.

10900730P

R. E. Morgan #1

API 47-109-00730

PROPOSED CONFIGURATION



Schematic is not to scale

T. Ott 01/16/14

10900730P

OG-10
Rev. - 9-71

37-45
8-8-22

RECEIVED
FEB 8 1973
OIL & GAS DIVISION
DEPT. OF MINES

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD 4

Rotary X Oil ____
Cable ____ Gas X C. NOLL
Recycling ____ Comb. ____
Water Flood ____ Storage ____
Disposal ____ (Kind)

Quadrangle Pineville, W. Va.
Permit No. WYO-730

Company PATRICK PETROLEUM CORPORATION
Address Suite 901 Nelson Building
Charleston, W. Va.
Farm R. E. MORGAN Acres 80
Location (waters) Brier Creek
Well No. 1 Elev. 1461.85'
District Baileysville County Wyoming
The surface of tract is owned in fee by
Opal Morgan Wolfe
Address Davey, West Virginia
Mineral rights are owned by Same
Address
Drilling Commenced 9-27-72
Drilling Completed 10-12-72
Initial open flow 150,000 cu. ft. ____ bbls.
Final production 130,000 cu. ft. per day ____ bbls.
Well open 6 hrs. before test ____ RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16 Cond.			
13-10" -3/8"	31'	31'	- 20 sks., cmt. to surface
9 5/8			
8 5/8	1248'	1248'	- 304 Sks. cmt. to surface
7			
5 1/2			
4 1/2	3700'	3700'	- 100 sks., 700 of fill-up
3			
2			
Liners Used			

Attach copy of cementing record.

Well treatment details:
Water fraced - 30,000# 20-40 Sand, total of 650 bbls. treating fluid
Job done by Dowell

Coal was encountered at No Coal Feet ____ Inches
Fresh water ____ Feet ____ Salt Water ____ Feet ____
Producing Sand Berea Depth ____

Formation Color Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water * Remarks
Soil	0	8	
Sand	8	184	
Coal	184	188	
Sand	188	382	
Shale	382	410	
Sand	410	640	
Shale	640	665	
Sand	665	783	
Salt Sand	783	812	
Shale	812	1132	
Shale & RedRock	1132	1395	
Sand	1395	1430	
Sand & Red Rock	1430	1460	
Shale	1460	1530	
Shale & Red Rock	1530	1604	
Red Rock	1604	1653	
Shale	1653	1890	
Maxton Sand	1890	1933	
Shale	1933	1998	
Sand	1998	2020	
Shale	2020	2285	
Little Lime	2285	2343	
Lime & Shale	2343	2382	

Office of Oil & Gas
AUG 15 [illegible]
WV Department of
Protection

(over)

* Indicates Electric Log tops in the remarks section.

10900730P

Formation	Color	Hard or Soft	Top Feet 4	Bottom Feet	Oil, Gas or Water	* Remarks
Big Lime			2382	2465		
Shale			2465	2522		
Little Lime			2522	2992		
Injun Sand			2992	3054		
Shale			3054	3573		
Sand			3573	3620		
Shale			3620	3720		

Date February 7, 19 73

APPROVED PATRICK PETROLEUM CORPORATION, Owner

By Donald C. Supinski
(Title)

10900730P

WW-4A
Revised 6-07

1) Date: August 8, 2016
2) Operator's Well Number
R.E. Morgan #1

3) API Well No.: 47 - 109 - 00730

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE 0F APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:
(a) Name Eva Addair
Address HC 65 Box 895
Davy, WV 24828
(b) Name Sigma Corportion
Address 1031 Quarrier St., Suite 207
Charleston, WV 25301
(c) Name
Address

5) (a) Coal Operator
Name See Attached Exhibit "A"
Address
(b) Coal Owner(s) with Declaration
Name WPP, LLC
Address 5260 Irwin Rd.
Huntington, WV 25705
Name
Address
(c) Coal Lessee with Declaration
Name None of Record
Address

6) Inspector Brian Ferguson
Address 708 Manor Drive
Beckley, WV 25801
Telephone (304) 550-6265

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

(1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
(2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator Cabot Oil & Gas Corporation
By: Kenneth L. Marcum
Its: Regulatory Supervisor
Address 2000 Park Lane, Suite 300
Pittsburgh, PA 15275
Telephone (412) 249-3850

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Constance C. Carden, Notary Public
McDonald Boro, Washington County
My Commission Expires Nov. 16, 2017
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Subscribed and sworn before me this 8th day of August, 2016
Constance C. Carden Notary Public
My Commission Expires November 16, 2017

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyoffier@wv.gov.

10900730P

EXHIBIT "A"

MORGAN, R.E. #1
47-109-00730

COAL OPERATOR(S)

Pinnacle Mining Co., LLC
P.O. Box 338
Pineville, WV 24874

Raw Coal Mining Co., Inc.
P.O. Box 1030
Bluefield, VA 24605

Brooks Run Mining Company, LLC
208 Business Street
Beckley, WV 25801

Spartan Mining Company
208 Business Street
Beckley, WV 25801

10900730P

WW-9
(2/15)

API Number 47 - 039 - 02933
Operator's Well No. R. E. Morgan #1

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Cabot Oil & Gas Corporation OP Code 08145

Watershed (HUC 10) Brier Creek of Indian Creek Quadrangle Baileysville

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes ☐ No ☑

Will a pit be used? Yes ☐ No ☑

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes ☐ No ☑ If so, what ml.? _____

Proposed Disposal Method For Treated Pit Wastes:

ANY WELL EFFLUENT WILL BE CONTAINED IN TANKS AND DISPOSED OFF-SITE.

_____ Land Application
_____ Underground Injection (UIC Permit Number _____)
_____ Reuse (at API Number _____)
_____ Off Site Disposal (Supply form WW-9 for disposal location)
■ Other (Explain No treated pit wastes will be produced

Will closed loop system be used? If so, describe: N/A

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. no drilling proposed

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used in drilling medium? N/A

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. No cuttings produced during plugging operation

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto 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 or imprisonment.

Company Official Signature Kenneth L. Marcum

Company Official (Typed Name) Kenneth L. Marcum

Company Official Title Regulatory Supervisor

Subscribed and sworn before me this 8th day of August, 2016

Constance C. Carden Notary Public

My commission expires 11/16/2017

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Constance C. Carden, Notary Public
McDonald Boro, Washington County
My Commission Expires Nov. 16, 2017
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

10900730P

Form WW-9

Operator's Well No. R. E. Morgan #1

Cabot Oil & Gas Corporation

Proposed Revegetation Treatment: Acres Disturbed 1.0 Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20/20 or equivalent

Fertilizer amount 500 lbs/acre

Mulch Pulp Fiber at 1000 to 1500 lbs. ~~Tons~~/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
(Grain Rye - 100) (Red Clover - 5) (Fescue - 40)		(Grain Rye - 100) (Red Clover - 5) (Fescue - 40)	
(Annual Rye - 20) (White Clover - 5)		(Annual Rye - 20) (White Clover - 5)	
(Perennial Rye - 10) (Alta Sweet Clover - 5)		(Perennial Rye - 10) (Alta Sweet Clover - 5)	
(Yellow Clover - 5) (Birdsfoot Trefoil - 10)		(Yellow Clover - 5) (Birdsfoot Trefoil - 10)	

Attach:
Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Comments: _____

Title: _____ Date: _____

Field Reviewed? (_____) Yes (_____) No

10900730P

GENERAL NOTES:

THIS DRAWING REPRESENTS A SCHEMATIC REPRESENTATION OF THE PROPOSED WELL SITE AND ACCESS ROAD. PROPOSED STRUCTURES SUCH AS THE DRILLING PIT, ROADWAY, CULVERTS, SEDIMENT BARRIERS, ETC. ARE SHOWN IN THEIR APPROXIMATE PREPLANNING CONFIGURATION. GIVEN UNFORESEEN CIRCUMSTANCES, THE AS-BUILT LOCATION OF THESE STRUCTURES MAY VARY SLIGHTLY FROM THE LOCATION SHOWN ON THE ATTACHED DRAWINGS.

ALL ROADS SHOWN THEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH GUIDELINES AND REQUIREMENTS OF WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL MANUAL.

ALL CULVERTS SHOWN ON THIS DRAWING ARE PROPOSED AND WILL BE A MINIMUM OF 15" IN DIAMETER UNLESS OTHERWISE NOTED.

DITCH LINES AND CULVERTS WILL BE INSTALLED WHENEVER PRACTICAL. HOWEVER PORTIONS OF THE EXISTING/ PROPOSED ROADS WHICH ARE LOCATED IN SOLID ROCK SHALL NOT REQUIRE DITCHES OR CROSS DRAINS, UNLESS OTHERWISE WARRANTED BY FIELD CIRCUMSTANCES.

SUPPLEMENTAL DRAINAGE AND/OR SEDIMENT CONTROL STRUCTURES MEASURES IN ADDITION TO THOSE SHOWN ON THE ATTACHED DRAWINGS WILL BE INSTALLED WHEN AND WHERE DEEMED NECESSARY. SUCH ADDITIONAL MEASURES MAY CONSIST OF EITHER STRAW BALES, SILT FENCES OR OTHER MEASURES OUTLINED IN THE WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL FIELD MANUAL.

SEDIMENT BASINS (TRAPS) WILL BE CONSTRUCTED AT ALL CULVERTS AND CROSS DRAINS INLETS AS REQUIRED IN THE WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL MANUAL. FIELD CONDITIONS SUCH AS ROCK OUTCROPS AND BEDROCK MAY PROHIBIT INLET TRAPS BEING INSTALLED WHEN THESE CONDITIONS EXIST. ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

A SEDIMENT BARRIERS OF EITHER BRUSH, STRAW BALES, FILTER FENCE, ETC. WILL BE INSTALLED AND MAINTAINED BELOW THE OUT FALL OF ALL PROPOSED CULVERTS AND AT ALL OTHER STORM WATER DRAINAGE POINTS FROM EITHER THE ROADWAY OR THE LOCATION.

ALL NECESSARY TIMBER OR BRUSH WILL BE REMOVED FROM ROUTE OF THE ROADWAY AND LOCATION BY CLEANING AND GRUBBING ACTIVITIES. ANY SALVAGEABLE TIMBER WILL BE CUT AND STACKED TO THE SIDE OF THE ROADWAY OR REMOVED TO A STOCKPILE AREA. THE REMAINING TIMBER OR BRUSH WILL BE CUTUP AND WIND ROWED BELOW THE OUTSLOPE OF THE CONSTRUCTION AREAS TO BE UTILIZED AS A SEDIMENT BARRIER.

SEPARATE PERMITS WILL BE OBTAINED FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION FOR ALL POINTS OF INGRESS AND EGRESS FROM COUNTY AND STATE ROADS. THESE INGRESS AND EGRESS POINTS WILL BE MAINTAINED IN ACCORDANCE WITH CURRENT WEST VIRGINIA DEPARTMENT OF TRANSPORTATION REGULATIONS. A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF 8" OF CRUSHED STONE WILL BE CONSTRUCTED FOR A MINIMUM DISTANCE OF 50' FROM THE INGRESS AND EGRESS POINTS OF ALL PUBLIC ROADWAYS IN ACCORDANCE WITH CURRENT WEST VIRGINIA DEPARTMENT OF TRANSPORTATION REGULATIONS.

ALL CULVERTS SHOWN ON THE ATTACHED DRAWINGS ARE TO BE CONSIDERED PERMANENT AND WILL REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION ACTIVITIES UNLESS NOTED OTHERWISE. A STABILIZED OUTLET CONTROL DEVICE SUCH AS RIP RAP, NATURAL STONE, BRUSH, ETC. WILL BE INSTALLED BELOW THE OUT FALL OF ANY ROADWAY CULVERT(S) WHICH ARE NOT LOCATED IN A STREAM OR CREEK.

PERMANENT CROSS DRAINS OR WATER BARS WILL BE INSTALLED AS AN INTEGRAL PART OF THE RECLAMATION PROCESS AND SHALL BE SPACED IN ACCORDANCE WITH AS-BUILT ROADWAY SLOPES AND TABLE 11-4 OF THE WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL FIELD MANUAL.

TEMPORARY SEEDING AND MULCHING WILL BE UTILIZED TO PROVIDE A VEGETATIVE COVER ON ALL DISTURBED AREAS I.E. ROADWAYS, LOCATION, ROAD/LOCATION SLOPES AND ANY OTHER AREAS THAT ARE DISTURBED BY CONSTRUCTION ACTIVITIES.

THE LOCATION OF DRILLING PIT(S) MAY BE ADJUSTED TO THE MOST ENVIRONMENTAL SAFE SITE TO MEET THE REQUIREMENTS OF THE WVDEP.

CONTRACTORS NOTE:

IT IS THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND CONDITION OF ALL UNDERGROUND UTILITIES, SANITARY SEWERS, STORM SEWERS, ETC. PRIOR TO THE COMMENCEMENT OF ANY/OR CONSTRUCTION ACTIVITIES. DIG WITH C.A.R.E. CALL MISS UTILITY 1-800-245-4848.

TABLE 11-4 SPACING OF CROSS DRAINS	
ROAD GRADE (%)	DISTANCE (FT)
1	400
2	250
5	135
10	80
15	60
20	45

TABLE 11-7 SPACING OF CULVERTS	
ROAD GRADE (%)	DISTANCE (FT)
2-5	500-300
6-10	300-200
11-15	200-100
16-20	100

DIG WITH C.A.R.E. CALL MISS UTILITY KEEP WEST VIRGINIA SAFE

1-800-245-4848

DRAWING LEGEND

PROPOSED ROAD
EXISTING ROAD
STRAW BALES
SILT FENCE
BRUSH BARRIER
TREE LINE
ROCK RIP RAP
CROSS DRAIN
CULVERT
DRILLING PIT
ROAD DITCH
GAS LINE
FENCE LINE
ROCK OUTCROP
WATER WELL
HOUSE/STRUCTURE
UTILITY POLE
SPRING
WET SPOT
PIT WASTE APP. AREA

DRIVING DIRECTIONS FOR R. MORGAN 1

1.) FROM THE INTERSECTION OF STATE ROUTE 10 WITH STATE ROUTE 97 IN PINEVILLE, DRIVE WEST ON STATE ROUTE 97 FOR 12.8 MILES± TO SECONDARY ROUTE 14.
2.) TURN LEFT ONTO SECONDARY ROUTE 14 AND GO SOUTH FOR 3.5 MILES± TO THE BEGINNING OF THE EXISTING ACCESS ROAD, LOCATED ON THE RIGHT-HAND SIDE OF THE ROAD.
3.) FROM THE AFOREMENTIONED SITE, FOLLOW THE EXISTING ACCESS ROAD UP THE HILL FOR APPROXIMATELY 0.2 MILES± TO THE EXISTING WELL SITE IN THE FIELD AS SHOWN ON THE "CONSTRUCTION AND RECLAMATION PLAN".

RECEIVED
Office of Oil & Gas
AUG 15 2016
WV Department of
Environmental Protection

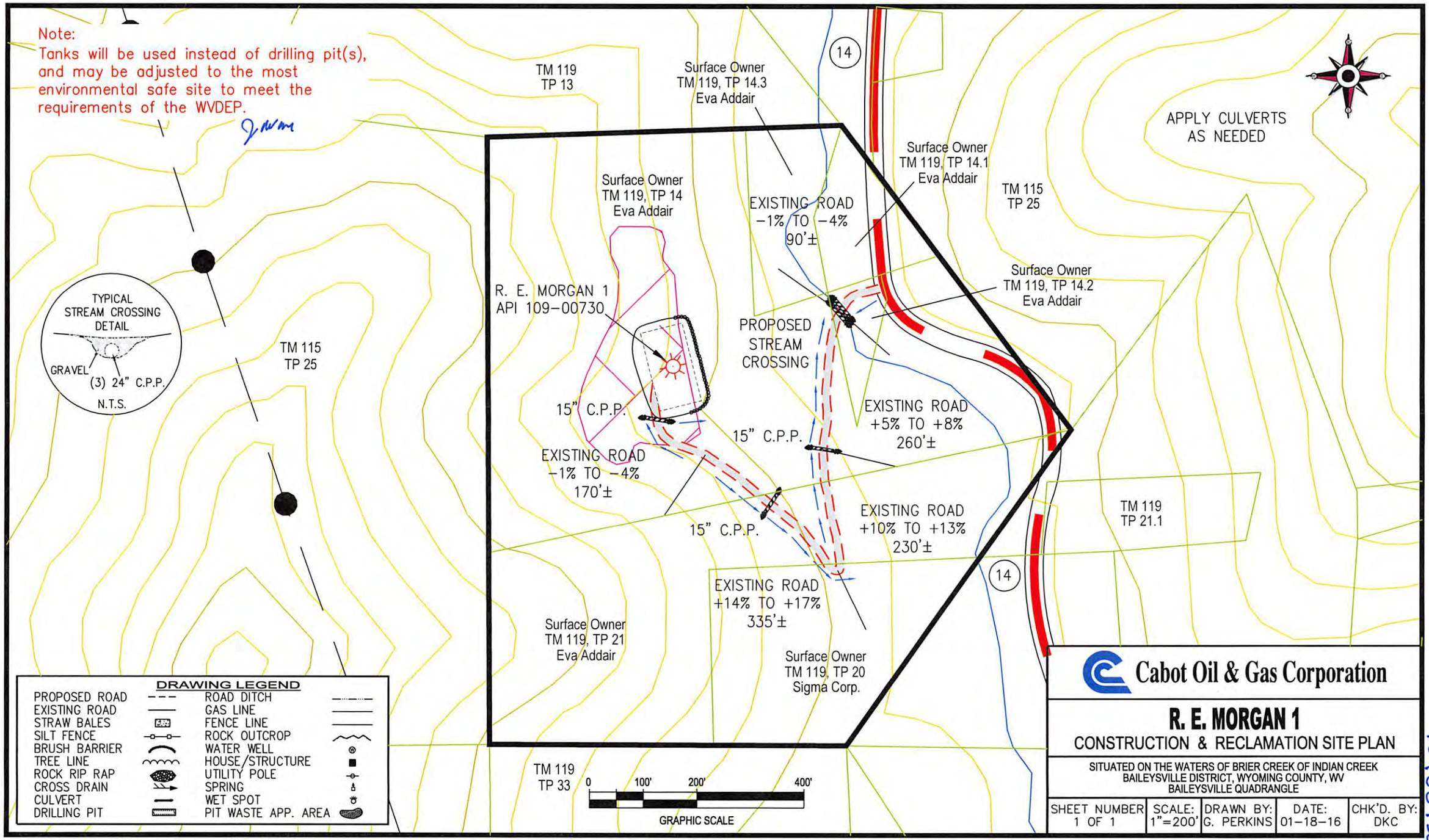
Cabot Oil & Gas Corporation

R. MORGAN 1

BAILEYSVILLE DISTRICT, WYOMING COUNTY, WV
BAILEYSVILLE 7.5' QUADRANGLE

Note:
Tanks will be used instead of drilling pit(s), and may be adjusted to the most environmental safe site to meet the requirements of the WVDEP.

JWM



DRAWING LEGEND

PROPOSED ROAD		ROAD DITCH	
EXISTING ROAD		GAS LINE	
STRAW BALES		FENCE LINE	
SILT FENCE		ROCK OUTCROP	
BRUSH BARRIER		WATER WELL	
TREE LINE		HOUSE/STRUCTURE	
ROCK RIP RAP		UTILITY POLE	
CROSS DRAIN		SPRING	
CULVERT		WET SPOT	
DRILLING PIT		PIT WASTE APP. AREA	

Cabot Oil & Gas Corporation

R. E. MORGAN 1

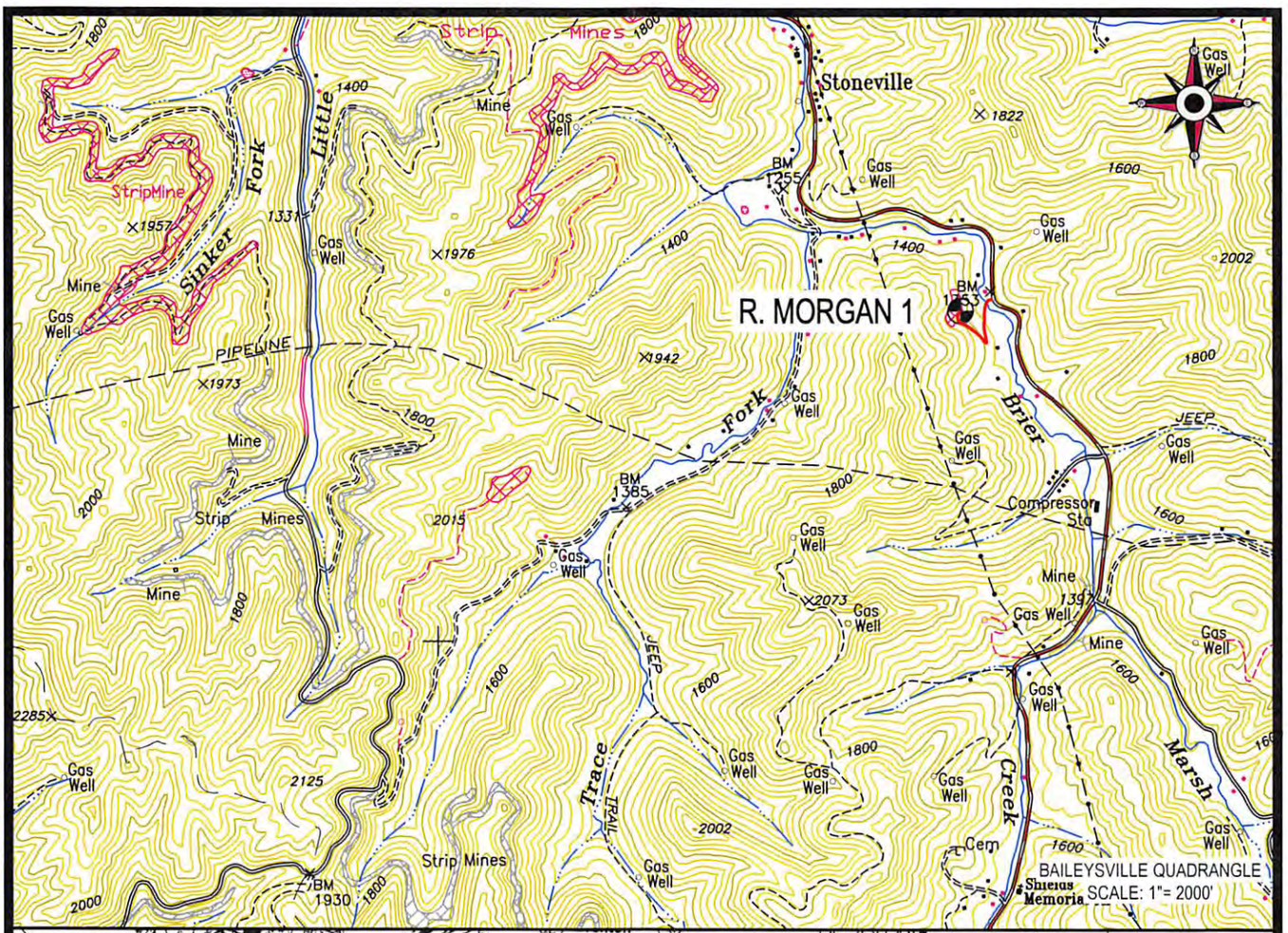
CONSTRUCTION & RECLAMATION SITE PLAN

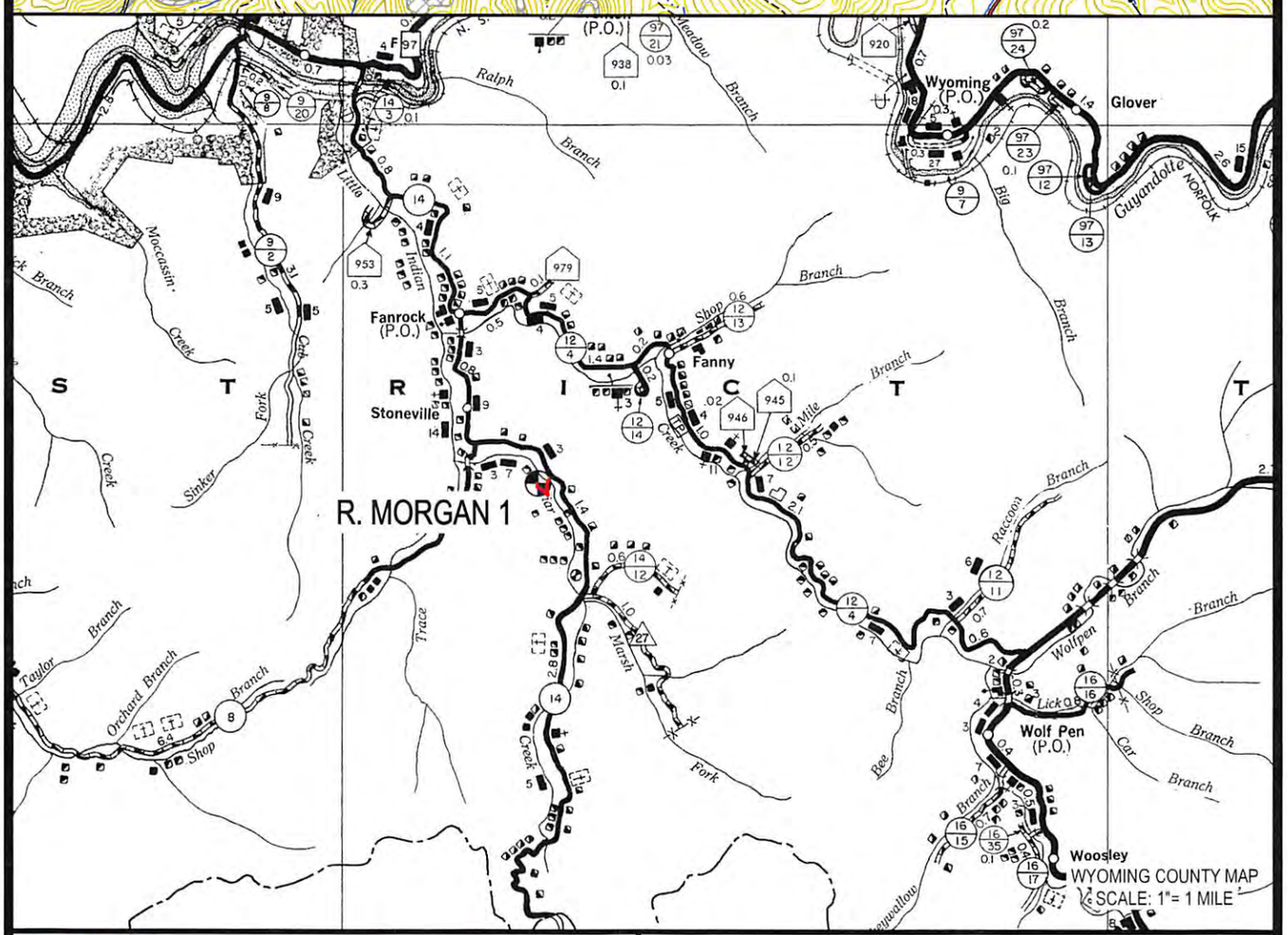
SITUATED ON THE WATERS OF BRIER CREEK OF INDIAN CREEK
BAILEYSVILLE DISTRICT, WYOMING COUNTY, WV
BAILEYSVILLE QUADRANGLE

SHEET NUMBER	SCALE:	DRAWN BY:	DATE:	CHK'D. BY:
1 OF 1	1"=200'	G. PERKINS	01-18-16	DKC

10900730P

109 00730P





Cabot Oil & Gas Corporation

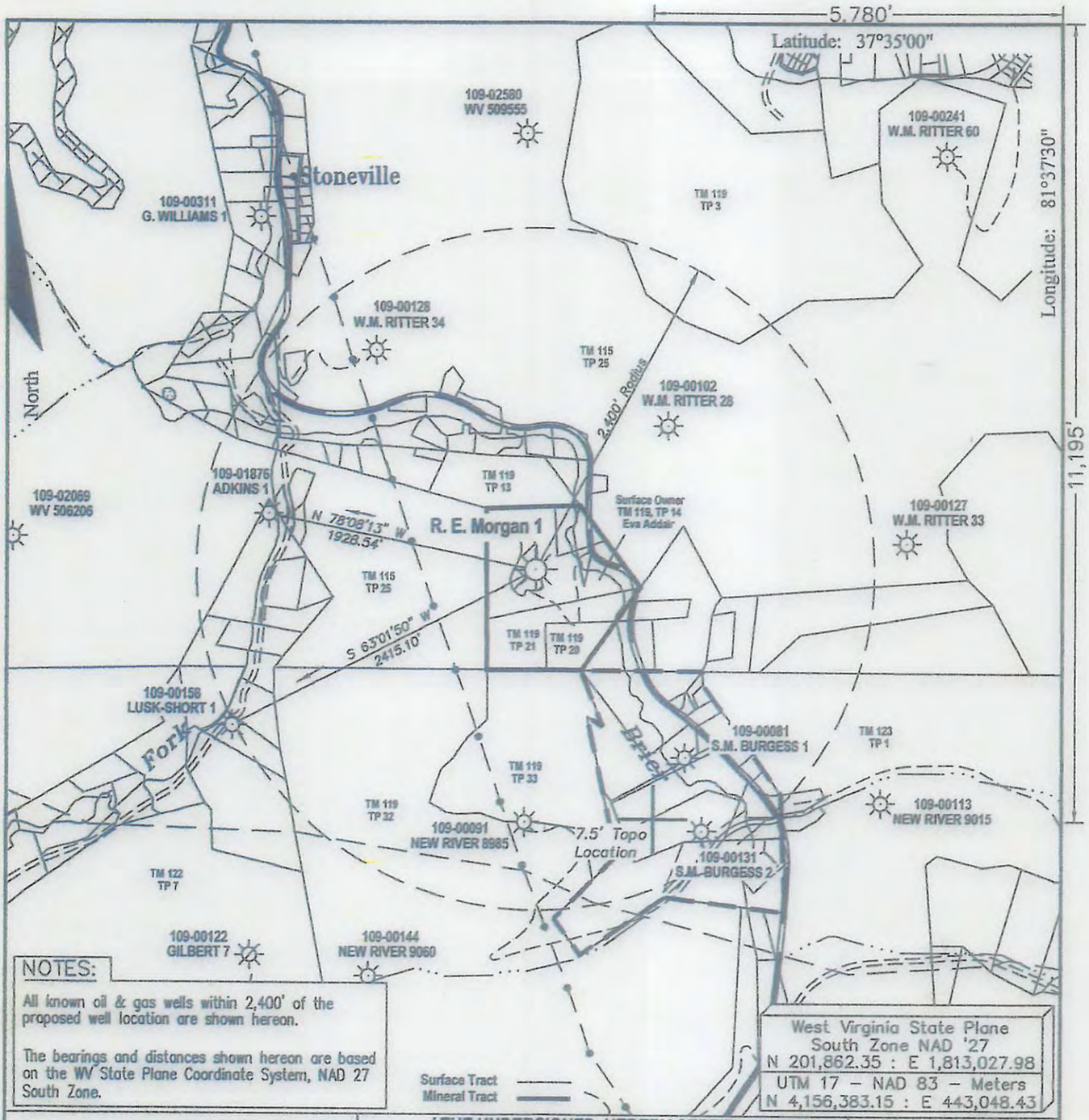
R. MORGAN 1

LOCATION MAP

CUNNINGHAM
LAND SURVEYING & MAPPING SERVICES, LLC
• 5213 STEPHEN WAY •
• CROSS LANES, WEST VIRGINIA 25313 •
• VOICE (304) 561-4129 • FAX (304) 776-0703 •
• E-MAIL ADDRESS • DKCUNNINGHAM@SUDDENLINK.NET •

LOCATED ON THE WATERS OF BRIER CREEK
OF INDIAN CREEK
BAILEYSVILLE DISTRICT, WYOMING COUNTY, WV
BAILEYSVILLE QUADRANGLE

PROJECT NO. CABOT	DWG. NO. R MORGAN 1 LOC.DWG	
DATE: 01-19-16	SCALE: AS NOTED	CHK'D BY: D.K.C.
DRAWN BY: G. PERKINS	FILE: C:\PROJECT FOLDER\CABOT	



NOTES:

All known oil & gas wells within 2,400' of the proposed well location are shown hereon.

The bearings and distances shown hereon are based on the WV State Plane Coordinate System, NAD 27 South Zone.

West Virginia State Plane
South Zone NAD '27
N 201,862.35 : E 1,813,027.98
UTM 17 – NAD 83 – Meters
N 4,156,383.15 : E 443,048.43

FILE #:

DRAWING #: Morgan 1 ww6

SCALE: 1" = 1000'

MINIMUM DEGREE OF ACCURACY: 1 : 10,000

PROVEN SOURCE OF ELEVATION: Global Positioning System (GPS)

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

Signed:

R.P.E.: L.L.S.: 1993

GREGORY A. PERKINS
LICENSED
No. 1993
STATE OF WEST VIRGINIA
PROFESSIONAL SURVEYOR

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

WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304

DATE: January 18, 2016

OPERATOR'S WELL #: R.E. Morgan 1

API WELL #: 47 (STATE) 109 (COUNTY) 00730 P (PERMIT)

Well Type: ☐ Oil ☐ Waste Disposal ☐ Production ☐ Deep
☒ Gas ☐ Liquid Injection ☐ Storage ☒ Shallow

WATERSHED: Brier Creek of Indian Creek ELEVATION: 1438.98'

COUNTY/DISTRICT: Wyoming / Baileysville QUADRANGLE: Baileysville

SURFACE OWNER: Eva Addair ACREAGE: 11.24

OIL & GAS ROYALTY OWNER: R. E. Morgan ACREAGE: 26.75

LEASE #: 47-0476 DRILL ☐ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☐

PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION ☐ PLUG & ABANDON ☒

CLEAN OUT & REPLUG ☐ OTHER CHANGE ☐ (SPECIFY):

TARGET FORMATION: ESTIMATED DEPTH:

WELL OPERATOR Cabot Oil & Gas Corp. DESIGNATED AGENT Phillip Hill

Address 2000 Park Lane, Suite 300 Address 900 Lee Street, Suite 1500

City Pittsburgh State PA Zip Code 15275 City Charleston State WV Zip Code 25301