west virginia department of environmental protection

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

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

May 19, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-1502647, issued to REED GAS INC, 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 all 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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalities being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: GOSHORN 11A
Farm Name: REED, JAMES W. JR., ETAL
API Well Number: 47-1502647
Permit Type: Plugging
Date Issued: 05/19/2015

Promoting a healthy environment.

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.

From:WV DEP

WW-4A
Revised 6-07

1) Date:
2) Operator's Well Number
Gosborn 11A
3) API Well No.: 47 - 15 - 02647

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

4) Surface Owner(s) to be served:
(a) Name James W Reed JrETal
Address 1314 Virginia St East
Charleston, WV 25301

(b) Name
Address

(c) Name
Address

5) (a) Coal Operator
Name
Address

(b) Coal Owner(s) with Declaration
Name
Address

Name
Address

(c) Coal Lessee with Declaration
Name
Address

6) Inspector
Address ~~Eddie Gainer~~
~~P.O. Box 821~~
~~Spencer WV 25276~~
Telephone

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 reverse 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 Reed Gas
By: Charles Reed
Its: Vice President
Address 1314 Virginia Street East
Charleston WV 25301
Telephone 304 345 4518

Subscribed and sworn before me this 20 day of April, 2015
Connie Walker Notary Public
My Commission Expires March 6, 2015

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
CONNIE WALKER
PO BOX 235
MOUNT CARBON, WV 25139
My commission expires Nov. 6, 2015

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 dependprivacyofficer@wv.gov.

Received
APR 21 2015
Office of Oil and Gas
WV Dept. of Environmental Protection

15-02647

7014 1200 0000 4936 6355

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

CHARLESTON WV 25301

OFFICIAL USE

Postage	$	$0.49
Certified Fee		$3.30
Return Receipt Fee (Endorsement Required)		$2.70
Restricted Delivery Fee (Endorsement Required)		$0.00
Total Postage & Fees	$	$6.49

0732
10
Postmark Here
STONEWALL STATION CHARLESTON, WV 25302-USPS
APR 21 2015
04/21/2015

Sent To
Reed Brothers Inc
Street, Apt. No.; or PO Box No. 1314 Virginia St East
City, State, ZIP+4
Charleston WV 25301

PS Form 3800, August 2006 See Reverse for Instructions

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APR 21 2015
Office of Oil and Gas
WV Dept. of Environmental Protection

WW-4B
Rev. 2/01

1) Date 4-6-15, 20____
2) Operator's Well No. Goshorn 11A
3) API Well No. 47- 15 -02647

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 ____ or Underground storage ____) Deep ____/ Shallow____

5) Location: Elevation 1059' Watershed Wade Fork
District Union County Clay Quadrangle Elkhurst

6) Well Operator Reed Gas
Address 1314 Virginia Street
Charleston WV

7) Designated Agent ____
Address ____

8) Oil and Gas Inspector to be notified
Name Eddie Gainer
Address P.O. Box 821
Spencer WV 25276

9) Plugging Contractor
Name Duckworth WEll Service
Address P.O.Box 6871
Charleston WV 25362

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

Cement 2250' - 2050.1350'
Cement 1300' - 1200'
Cement 800' - 700'
Cement 100' - Surface

Erect monument with API numbers.
Gel between all plugs.

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

Work order approved by inspector ____ Date 4/21/15

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APR 21 2015
Office of Oil and Gas
WV Dept. of Environmental Protection

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WR - 35
Rev (5-01)

Date: 03/28/03
API # 47-15-02647

State of West Virginia
Department of Environmental Protection
Office of Oil & Gas
Well Opererators Report of Well Work

Operators well name: Goshorn 11A
Farm Name: Reed James W. Jr. Etal Operator # 41350

Location:
Elevation 1259 Quadrangle: Elkhurst
District Union County: Clay
Latitude: 310 Feet South of 38 Deg 25 Min. 0 Sec.
Longitude: 360 Feet West of 81 Deg 12 Min. 30 Sec.

Company: Reed Gas Inc.
Address: 1206 Kanawha Blvd. E.- Suite 201
Charleston, WV 25301

Agent:	James W. Reed Jr.	Casing & Tubing	Used in Drilling	Left in Well		Cement Fill up Cu Ft			
Inspector	Carlos Hively								
Date Permit Issued	11/13/01	13 3/8	35		FT		Sks		CU FT
Date Well Work Commenced	01/13/01	8 5/8	386	386	FT	155	Sks	215	CU FT
Date Well Work Completed	05/03/02	4 1/2		2265	FT	240	Sks	360	CU FT
Verbal Plugging:		2 3/8		2105	FT	NA	Sks		CU FT
Date Permission Granted On					FT		Sks		CU FT
Rotary X Cable RIG									
Total Depth (feet):	2300								
Fresh Water Depth:	NA								
Salt Water Depth	560								
Is coal being mined in area ?	N								
Coal Depths									

OPEN FLOW DATA:

Producing Formation: Weir Pay zone depth (ft) 2123 to 2127
GAS: Initial Open Flow: NA MCF/d OIL: Initial Open Flow: ___ Bbl/d
Final Open Flow: 60 MCF/d Final Open Flow: ___ Bbl/d
Time of open flow between initial and final tests 6 Hours
Static rock pressure: 264 PSI (surface pressure) after 48 Hours

Second producing formation: Big Lime Pay zone depth (ft) 2044 to 2083
GAS: Initial Open Flow: ___ MCF/d OIL: Initial Open Flow: ___ Bbl/d
Final Open Flow: ___ MCF/d Final Open Flow: ___ Bbl/d
Time of open flow between initial and final tests ___ Hours
Static rock pressure: ___ PSI (surface pressure) after ___ Hours

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Office of Oil & Gas
Permitting
APR 01 2003
WV Department of
Environmental Protection

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

Signed: Merl Richards
By:
Date: 3/28/03

CLAY 2647

1/3

WR - 35
Rev (5-01)

Date: 03/28/03
API # 47-15-02647

State of West Virginia
Department of Environmental Protection
Office of Oil & Gas

Operators well name: Goshorn 11A
Farm Name: Reed James W. Jr. Etal Operator # 41350

Company: Reed Gas Inc.
Address: 1206 Kanawha Blvd. E.- Suite 201
Charleston, WV 25301

GEOLOGICAL RECORD

Description:	Top	Bottom
Soil	0	30
Sand & Shale	30	959
Eagle Shale	959	968
Shale Break	968	1070
Salt Sands w/ intermittent Shale	1070	1695
Red Rock & Gray Shale	1695	1880
Little Lime	1880	1910
Pencil Cave	1910	1950
Big Lime	1950	2050
Sand & Shale	2050	2120
Upper Weir	2120	2146
Shale	2146	2300

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Permitting
APR 01 2003
WV Department of
Environmental Protection

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APR 21 2015
Office of Oil and Gas

2/3

Reed Brothers Limited Partnership

Well Completion Report

Well Name	Goshorn 11A	Date	03-May-02
API #	47-015-22647-0000		

Stage 1

Formation	Weir	Perfs	2123 - 2127		
Break down PSI	1720	Avg PSI	1762	ISDP	1730
Average Pump Rate:	16	BPM	Fluid System	75% Foam	
Total Sand	24,241	LBs	Fluid to Recover	231	BBls
Max Sand Conc.	3	Lbs/gal	Acid 15%	500	Gals
Nitrogen	231,777	SCF	Acid 28%	0	Gals

Stage 2

Formation	Big Lime	Perfs	2044 - 2083		
Break down PSI	1850	Avg PSI	3700	ISDP	1730
Average Pump Rate:	18	BPM	Fluid System	65% Foam	
Total Sand	5,000	LBs	Fluid to Recover	100	BBls
Max Sand Conc.	2.5	Lbs/gal	Acid	500	Gals
Nitrogen	214,354	SCF	Acid 28%	0	Gals

Stage 3

Formation	NA	Perfs			
Break down PSI		Avg PSI		ISDP	
Average Pump Rate:		BPM	Fluid System		
Total Sand		LBs	Fluid to Recover		BBls
Max Sand Conc.		Lbs/gal	Acid		Gals
Nitrogen		SCF	Acid 28%	0	Gals

Stage 4

Formation	NA	Perfs			
Break down PSI		Avg PSI		ISDP	
Average Pump Rate:		BPM	Fluid System		
Total Sand		LBs	Fluid to Recover		BBls
Max Sand Conc.		Lbs/gal	Acid		Gals
Nitrogen		SCF	Acid 28%	0	Gals

Total Sand	29,241	LBs	Total Fluid	331	BBLs
Total Nitrogen	446,131	SCF	Total Acid	1000	Gals

Reed Brothers Limited Partnership

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APR 01 2003
WV Department of
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Environmental Protection

MAY 2017

WW-9
Rev. 1/06

Page ____ of ____
API Number 47 - 15 - 02647
Operator's Well No. Cochom 11A

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name James Reed Gas OP Code ____

Watershed Wade Fork Quadrangle Elkhurst

Elevation 1259' County Clay District Union

Description of anticipated Pit Waste: Gel water

Will a synthetic liner be used in the pit? ____

Proposed Disposal Method For Treated Pit Wastes:

____ Land Application
____ Underground Injection (UIC Permit Number ____)
____ Reuse (at API Number ____)
____ Off Site Disposal (Supply form WW-9 for disposal location)
____ Other (Explain ____)

Proposed Work For Which Pit Will Be Used:

____ Drilling
____ Workover
____ Other (Explain ____)
____ Swabbing
__X__ Plugging

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 Charles Reed Charles Reed

Company Official (Typed Name) Charles Reed

Company Official Title Vice President

Subscribed and sworn before me this 20 day of April, 2015

Connie Walker Notary Public

My commission expires Nov 6, 2015

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
CONNIE WALKER
PO BOX 235
MOUNT CARBON, WV 25139
My commission expires Nov. 6, 2015

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APR 21 2015
Office of Oil and Gas
WV Dept. of Environmental Protection

Form WW-9

Operator's Well No. _____

Property Boundary
Road
Existing Fence
Planned Fence
Stream
Open Drain
Rock
North N
Buildings
Water wells
Drill site

LEGEND
Diversion
Spring
Wet Spot
Drain Pipe with size in inches
Waterway
Cross Drain
Artificial Filter Strip
Pit that walls
Pit composted fill walls
Area for Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed 1 Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH _____

Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Contractors Mix			

Attach:
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Comments: _____

Title: Inspector Date: 4/21/15

Field Reviewed? ( ) Yes (X) No

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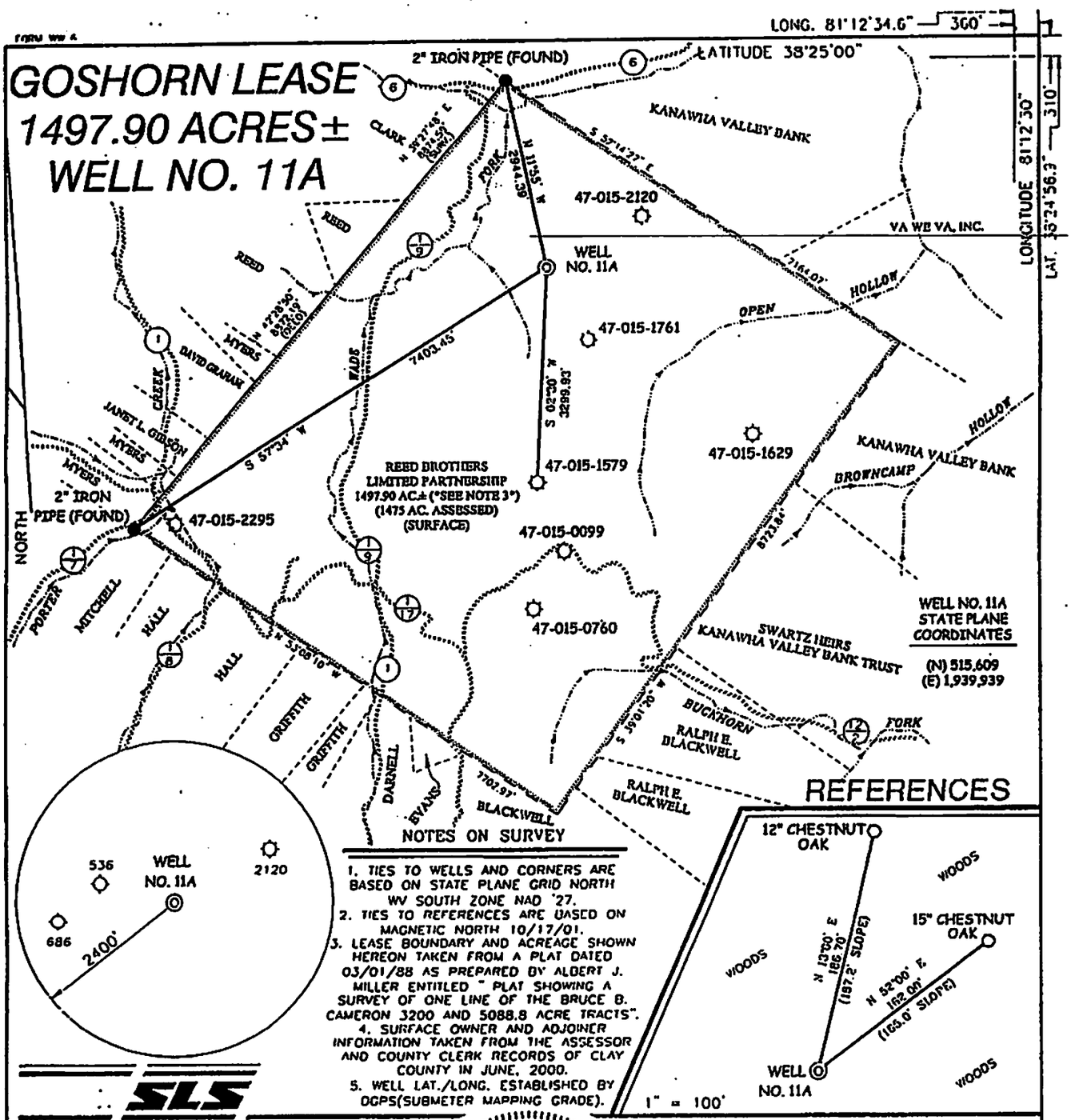
Office of Oil and Gas
WV Dept. of Environmental Protection

GOSHORN LEASE
1497.90 ACRES±
WELL NO. 11A



REFERENCES

NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 10/17/01.
3. LEASE BOUNDARY AND ACREAGE SHOWN HEREON TAKEN FROM A PLAT DATED 03/01/88 AS PREPARED BY ALBERT J. MILLER ENTITLED " PLAT SHOWING A SURVEY OF ONE LINE OF THE BRUCE B. CAMERON 3200 AND 5088.8 ACRE TRACTS".
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF CLAY COUNTY IN JUNE, 2000.
5. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

SLS

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 ENVIRONMENTAL PROTECTION.

P.S. 677 Gregory A. Smith

GREGORY A. SMITH LICENSED No. 677 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

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

DATE OCTOBER 22, 20 01

OPERATORS WELL NO. GOSHORN NO. 11A

API WELL NO. 47 — 15 — 02647
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 4897P11A (114-16)

SCALE 1" = 2000'

PROVEN SOURCE OF ELEVATION JUNCTION OF ROADS ELEVATION 1063'

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

Received APR 2 1 2015 Office of Oil and Gas Protection

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

LOCATION :
ELEVATION 1259' WATERSHED WADE FORK
DISTRICT UNION COUNTY CLAY QUADRANGLE ELKHURST 7.5'
SURFACE OWNER JAMES W. REED, JR. ET AL ACREAGE 1497.90
ROYALTY OWNER GOSHORN HEIRS LEASE ACREAGE 1497.90
PROPOSED WORK : LEASE NO.
DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___
PHYSICAL CHANGE IN WELL (SPECIFY) ___ TARGET FORMATION DEVONIAN SHALE
ESTIMATED DEPTH 5000'

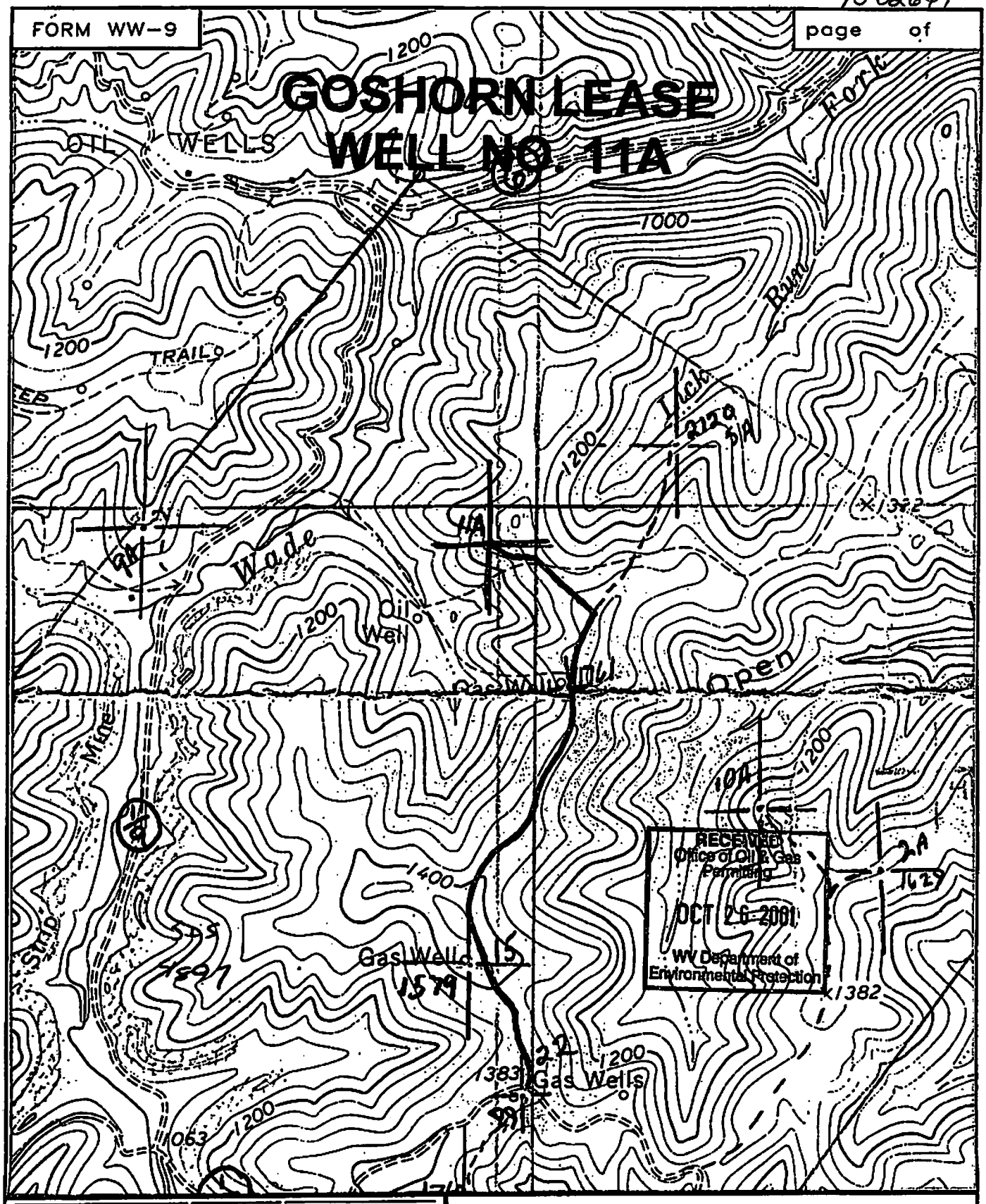
COUNTY NAME CLAY
PERMIT 2647

WELL OPERATOR REED GAS, INC. DESIGNATED AGENT JAMES W. REED, JR.
ADDRESS 1206 KANAWHA BLVD, SUITE 201, CHARLESTON, WV 25301 ADDRESS 1206 KANAWHA BLVD, SUITE 201, CHARLESTON, WV 25301

15-02647

FORM WW-9

page of



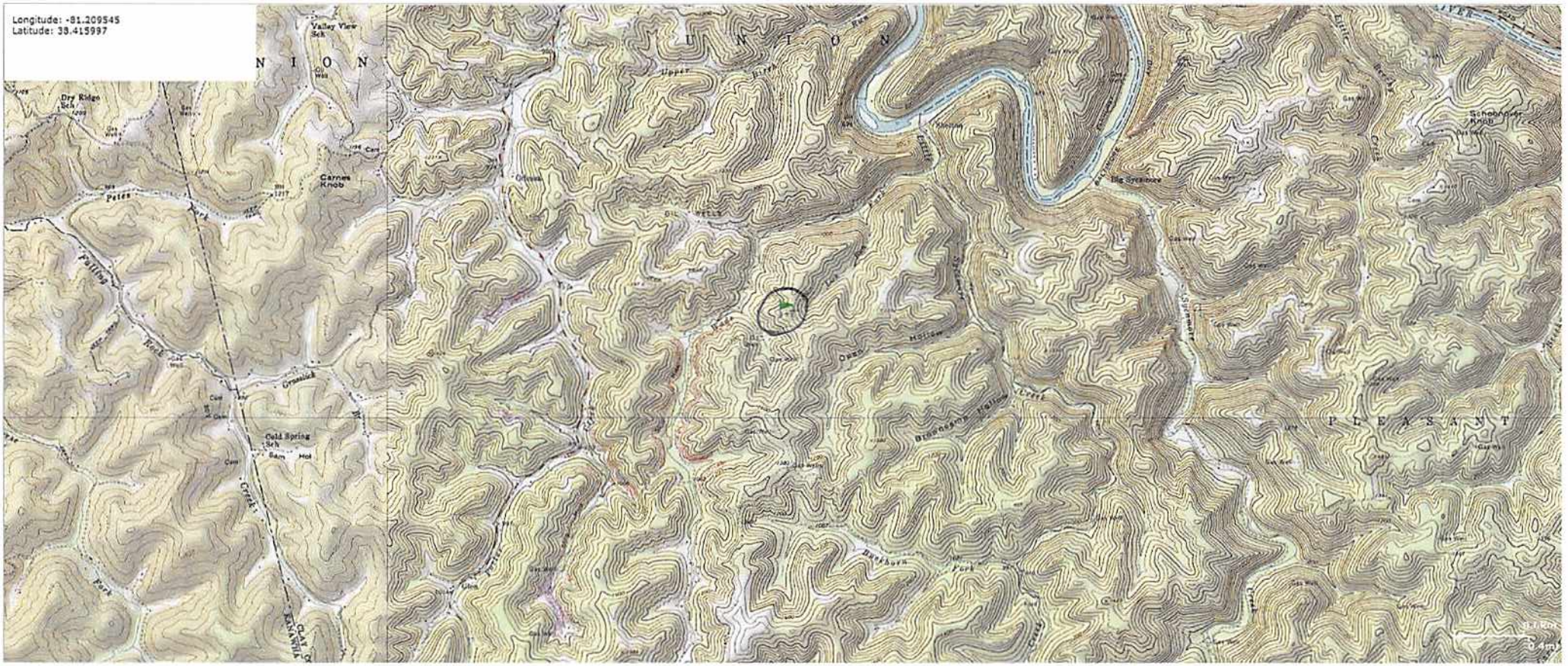
SLS

SMITH LAND SURVEYING
P.O.BOX 150 GLENVILLE, WV. 26351

TOPO SECTION OF Elkhurst 7.5'

FILE NO. 4897 DATE 10/23/01 SCALE 1"=1000'

15-02647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Latitude: 38.415997
Valley View Sch
Dry Ridge Sch
Carnes Knob
Petes
Fork
Fulling
Rock
Grasslick
Cold Spring Sch
Sam Hol
Creek
Fork
CLAY
KANAWHA
Upper
Birch
Elliott
Big Sycamore
Sycamore
Oven
Hollow
Broadcasting Hollow
Creek
Buckhorn
Fork
Creek
Schoonover Knob
Elliott
Creek
P L E A S A N T

WW-7
8-30-06

West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-15-02647 **WELL NO.:** 11A

FARM NAME: Goshorne

RESPONSIBLE PARTY NAME: ~~Chartes~~ Reed Gas Inc.

COUNTY: Clay **DISTRICT:** UNION

QUADRANGLE: Elkhurst

SURFACE OWNER: Reed Brothers

ROYALTY OWNER: Reed Brothers

UTM GPS NORTHING: 4251982

UTM GPS EASTING: 481714 **GPS ELEVATION:** 1259'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS ____: Post Processed Differential ____

Real-Time Differential ____

Mapping Grade GPS ____: Post Processed Differential ____

Real-Time Differential ____

4. **Letter size copy of the topography map showing the well location.**

Received
APR 21 2015
Office of Oil and Gas
WV Dept. of Environmental Protection

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

Steve Duckworth Cont. 4-16-15

Signature Title Date