



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

PERMIT MODIFICATION APPROVAL

July 29, 2014

MURVIN & MEIER OIL CO.
POST OFFICE BOX 396
OLNEY, IL 62450

Re: Permit Modification Approval for API Number 8510128 , Well #: K/S CUNNINGHAM #1
8 5/8" CASING CHANGED TO GRADE J-55, WEIGHT 24 LB/FT AND 2030' LENGTH

Oil and Gas Operator:

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

Please call James Martin at 304-926-0499, extension 1654 if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Gene Smith".

Gene Smith *J M M*
Assistant Chief of Permitting
Office of Oil and Gas

MOA

8510128 M

8510128

WW - 2B
(Rev. 8/10)

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator Murvin & Meier Oil Co 307900 Ritchie Murphy Southville 25'
Operator ID County District Quadrangle
- 2) Operator's Well Number: K/S Cunningham #1 3) Elevation: 1108
- 4) Well Type: (a) Oil X or Gas X
(b) If Gas: Production X / Underground Storage _____
Deep _____ / Shallow X
- 5) Proposed Target Formation(s): Waverly Rhinestreet Proposed Target Depth: 6350
6) Proposed Total Depth: 6350 Feet Formation at Proposed Total Depth: Shale
7) Approximate fresh water strata depths: 70' (Permit # 9815) 15' Permit # 10050
8) Approximate salt water depths: 2000' (Permit # 10050)
- 9) Approximate coal seam depths: None
- 10) Approximate void depths, (coal, Karst, other): None
- 11) Does land contain coal seams tributary to active mine? No
- 12) Describe proposed well work in detail Drill and Complete New Well

13) CASING AND TUBING PROGRAM

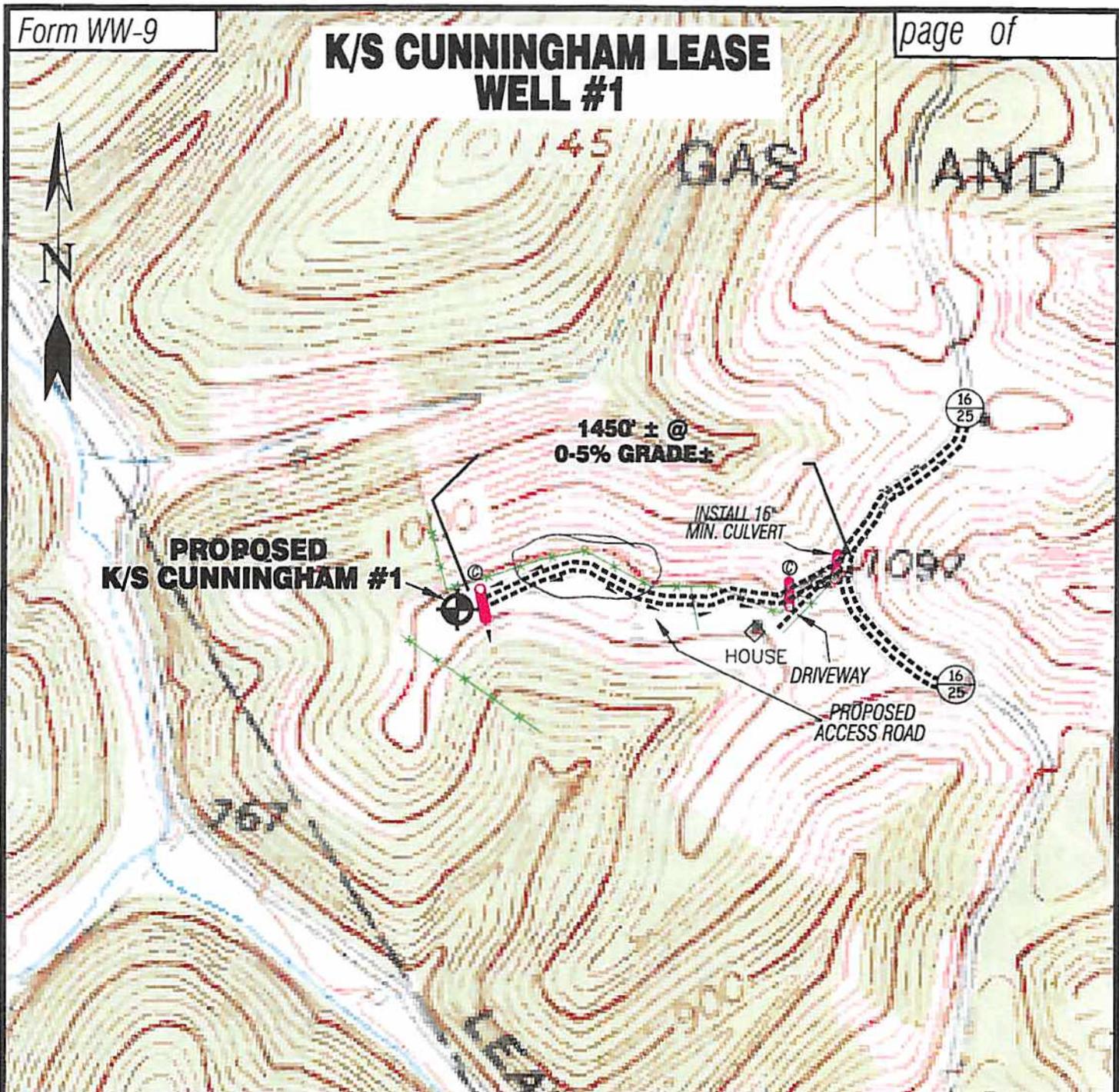
	TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill-up (Cu. Ft.)
Conductor	16"		32	20'	20'	
Fresh Water	11 3/4"	A-500	32	300'	300'	CTS
Coal						
Intermediate	8 5/8"	J-55	24	2030'	2030'	CTS
Production	4 1/2"	WT-65	10.5	6350'	6350'	600
Tubing						
Liners						

Received
JUL 14 2014

Packers: Kind: _____
Sizes: _____
Depths Set _____

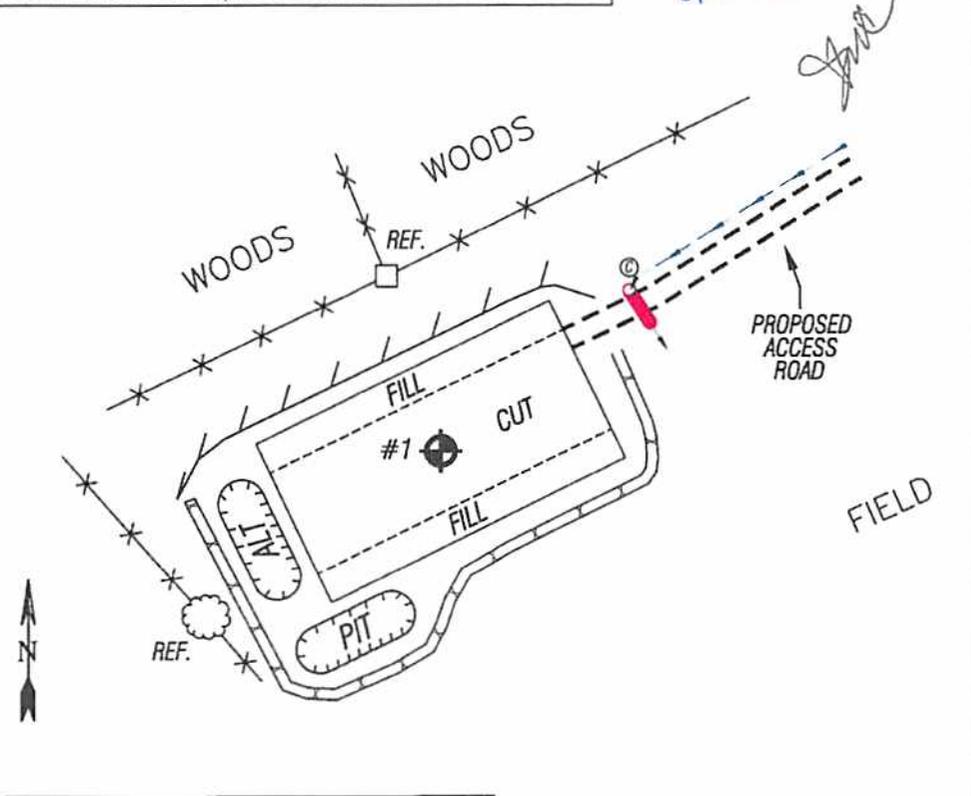
Office of Oil and Gas
WV Dept. of Environmental Protection
Daniel W. Cain
4-14-14

K/S CUNNINGHAM LEASE WELL #1



Detail Sketch for Proposed Well K/S CUNNINGHAM #1

6/25/2014



SCALE: 1"=500'



ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D E P OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D O T REGULATION SEPARATE PERMITS MAY BE REQUIRED BY THE D O T

SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D E P OIL AND GAS BMP MANUAL. FIELD CONDITIONS (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

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION

CUT & STACK ALL MARKETABLE TIMBER

STACKED BRUSH MAY BE USED FOR SEDIMENT CONTROL

APPLICATIONS FOR SEPARATE PLC PERMITS ON THE ACCESS ROAD STREAM CROSSINGS HAVE BEEN PREPARED (IF APPLIES)

- EXISTING CULVERT
- PROPOSED CULVERT 12" MIN UNLESS OTHERWISE NOTED
- PROPOSED STREAM CROSSING
- APPROXIMATE LIMITS OF DISTURBANCE

Not To Scale

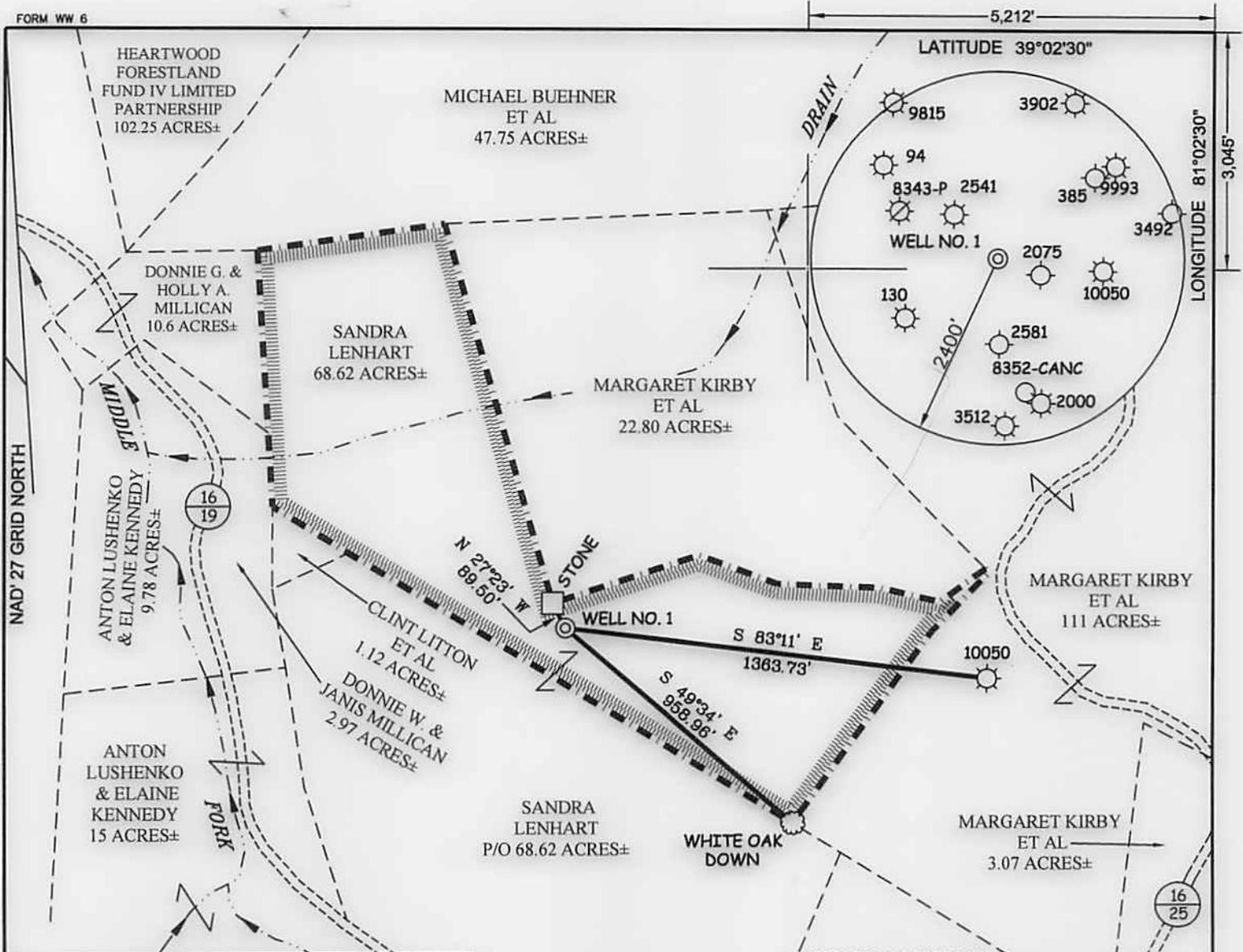
Professional Energy Consultants
A DIVISION OF SMITHLAND SURVEYING, INC.

SLS
SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.

(304) 482 5834 WWW.SLSURVEYS.COM

DRAWN BY C.P.M.	FILE NO. 8203	DATE 05-29-14	CADD FILE: 8203PEC1R.dwg
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TOPO SECTION OF SMITHVILLE 7.5' USGS TOPO QUADRANGLE



**MURVIN & MEIER OIL CO.
K/S CUNNINGHAM LEASE
30 ACRES±
WELL NO. 1**

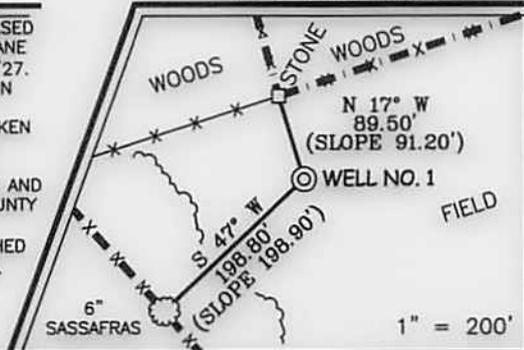
(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD'27 S.P.C.(FT) N. 198,090 E. 1,556,855
 NAD'27 GEO. LAT-(N) 39.03331 LONG-(W) 81.06001
 NAD'83 UTM (M) N. 4,320,484 E. 494,820



NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 03-19-14.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM WELL PLAT 47-085-2075-P.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF RITCHIE COUNTY IN JULY, 2013.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

REFERENCES



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677 *Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE MARCH 31, 20 14
 REVISED _____, 20 ____
 OPERATORS WELL NO. K/S CUNNINGHAM #1
 API WELL NO. 47 - 85 - 10/28
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 8203P1 (497-39)
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS SUBMETER MAPPING GRADE SCALE 1" = 500'

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

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

LOCATION:
 ELEVATION 1,108' WATERSHED MIDDLE FORK OF LEATHER BARK CREEK
 DISTRICT MURPHY COUNTY RITCHIE QUADRANGLE SMITHVILLE 7.5'

SURFACE OWNER SANDRA LENHART ACREAGE 68.62±
 ROYALTY OWNER KIEDAISCH & SUMMERS ETAL ACREAGE 30±

PROPOSED WORK:
 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 RHINESTREET
 ESTIMATED DEPTH 6,400'

WELL OPERATOR MURVIN & MEIER OIL COMPANY DESIGNATED AGENT P. NATHAN BOWLES, JR.
 ADDRESS P.O. BOX 396 ADDRESS P.O. BOX 1237
OLNEY, IL 62450 CHARLESTON, WV 25325

COUNTY NAME PERMIT

Nottingham, Justin E

From: Kate M. Blackford <katieb@murvinandmeier.com>
Sent: Monday, July 14, 2014 3:10 PM
To: Nottingham, Justin E
Subject: FW: Vertical Drilling Well Work Permit (API: 47-085-10128)
Attachments: Scanned from a Xerox multifunction device.pdf

Sorry ... here is the attachment!

From: Kate M. Blackford [<mailto:katieb@murvinandmeier.com>]
Sent: Monday, July 14, 2014 2:09 PM
To: 'Nottingham, Justin E'
Subject: RE: Vertical Drilling Well Work Permit (API: 47-085-10128)

Hi Justin,

Attached is a revised Form WW-2B for the K/S Cunningham #1, which has been signed off on by the State Inspector, Dave Cowan. The guys originally listed the specifications and the footage incorrectly on the 8 5/8-inch.

Do I need to do anything else to have this corrected?

Just let me know ...

So,
 thanks,
 Kate

JKD
 S

From: Nottingham, Justin E [<mailto:Justin.E.Nottingham@wv.gov>]
Sent: Wednesday, July 02, 2014 12:37 PM
To: Kate Blackford (katieb@murvinandmeier.com)
Subject: Vertical Drilling Well Work Permit (API: 47-085-10128)

I have attached a copy of the newly issued permit to drill vertical well number "K/S CUNNINGHAM #1" (API 47-085-10128). This will serve as your copy. If you have any questions, then please contact us here at the Office of Oil and Gas.

Thanks,
 Justin Nottingham

JKD
 KAD
 JED
 S

Justin E. Nottingham
West Virginia Department of Environmental Protection
Office of Oil and Gas
Environmental Technician