

SHL is located on topo map 2,182 feet south of Latitude: 39° 57' 30"
 BHL is located on topo map 11,601 feet south of Latitude: 39° 57' 30"

Sheffler & Company, Inc.
 ENGINEERING • SURVEYING

1712 Mount Nebo Road Phone: 412-219-4509
 Sewickley, PA 15143 Email: Info@shefflerCo.com

SHL +

TOTAL UNIT
 470.9 ACRES

REFERENCE DETAIL



NOTES

- There are no water wells or developed springs within 250' of proposed well
- There are no existing buildings within 625' of proposed well
- Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake
- There are no native trout streams within 300' of proposed well
- Proposed well is greater than 1000' from surface/groundwater intake or public water supply
- It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted herein. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted
- Mineral and Surface parcel lines are the same.



LEGEND

- TOPO MAP POINT
- PROPOSED WELL
- PRIVATE WATER WELL
- SPRING LOCATION
- LEASED NUMBER BASED ON ATTACHED WWSA1
- ALL ARE POINTS UNLESS OTHERWISE NOTED
- MINERAL TRACT BOUNDARY
- UNIT BOUNDARY
- PARCEL LINES
- PROPOSED HORIZONTAL WELL
- WELL REFERENCE
- STREAM/POND/WATERWAY
- ROAD
- FORCE POOLED PARCEL

WELLS WITHIN 3000'
 SIX (6) WELLS WITHIN 3000'

MONUMENT REFERENCE TABLE

LINE NO.	BEARING	DISTANCE
R1	S1°59'50"W	387.81'
R2	N77°06'10"E	269.02'
R3	N47°41'26"W	542.19'
R4	N77°06'10"E	269.02'
R5	N77°09'53"W	1283.74'

SURFACE HOLE LOCATION (SHL)

UTM 17 - NAD83 N: 4422532.261(m) E: 531356.922(m)
NAD27 W.W. NORTH N: 530958.940(ft) E: 1682338.823(ft)
LAT/LON - NAD83 LAT: N39.9523428 LON: W80.6329051

APPROXIMATE LANDING POINT

UTM 17 - NAD83 N: 4422555.638(m) E: 531494.664(m)
NAD27 W.W. NORTH N: 531028.084(ft) E: 1682792.092(ft)
LAT/LON - NAD83 LAT: N39.9525483 LON: W80.6312915

BOTTOM HOLE LOCATION (BHL)

UTM 17 - NAD83 N: 4419671.820(m) E: 533513.940(m)
NAD27 W.W. NORTH N: 521453.845(ft) E: 1689260.043(ft)
LAT/LON - NAD83 LAT: N39.9264884(d) LON: W80.6078006(d)

FILE # HARRENHAL-8UH
 DRAWING # HARRENHAL-8UH-R7.DWG
 SCALE 1"=2500'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION USGS MONUMENT JX0742: 1343.3'

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.

SIGNED: [Signature]
 R.P.E.: 21452 L.L.S.: P.S. NO.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



DATE: December 18, 2018 - REV - April 30, 2019

OPERATOR'S WELL #: HARRENHAL-8UH

API WELL # 47 051 02090
 STATE COUNTY PERMIT

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

WATERSHED WHEELING CREEK - UPPER OHIO RIVER ELEVATION 1,134.2'
 COUNTY/DISTRICT MARSHALL / WEBSTER QUADRANGLE MOUNDVILLE, WV
 SURFACE OWNER(1) APP MINERALS LLC ACREAGE(1) 183.31 SURFACE OWNER(2) ERIC G. DAILEY & NORMA C. PAYNE ACREAGE(2) 39.39
 OIL & GAS ROYALTY OWNERS(1) APP MINERALS LLC ACREAGE(1) 183.31
 OIL & GAS ROYALTY OWNERS(2) ERIC G. DAILEY & NORMA C. PAYNE ACREAGE(2) 39.39

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)
 TARGET FORMATION POINT PLEASANT ESTIMATED DEPTH TVD: 11,395' ± TMD: 23,408' ±
 WELL OPERATOR: AMERICAN PETROLEUM PARTNERS OPERATING, LLC DESIGNATED AGENT STEVEN GREEN
 Address 4600 J. BARRY COURT, SUITE 310 Address 300 SUMMERS ST, SUITE 1000
 City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301

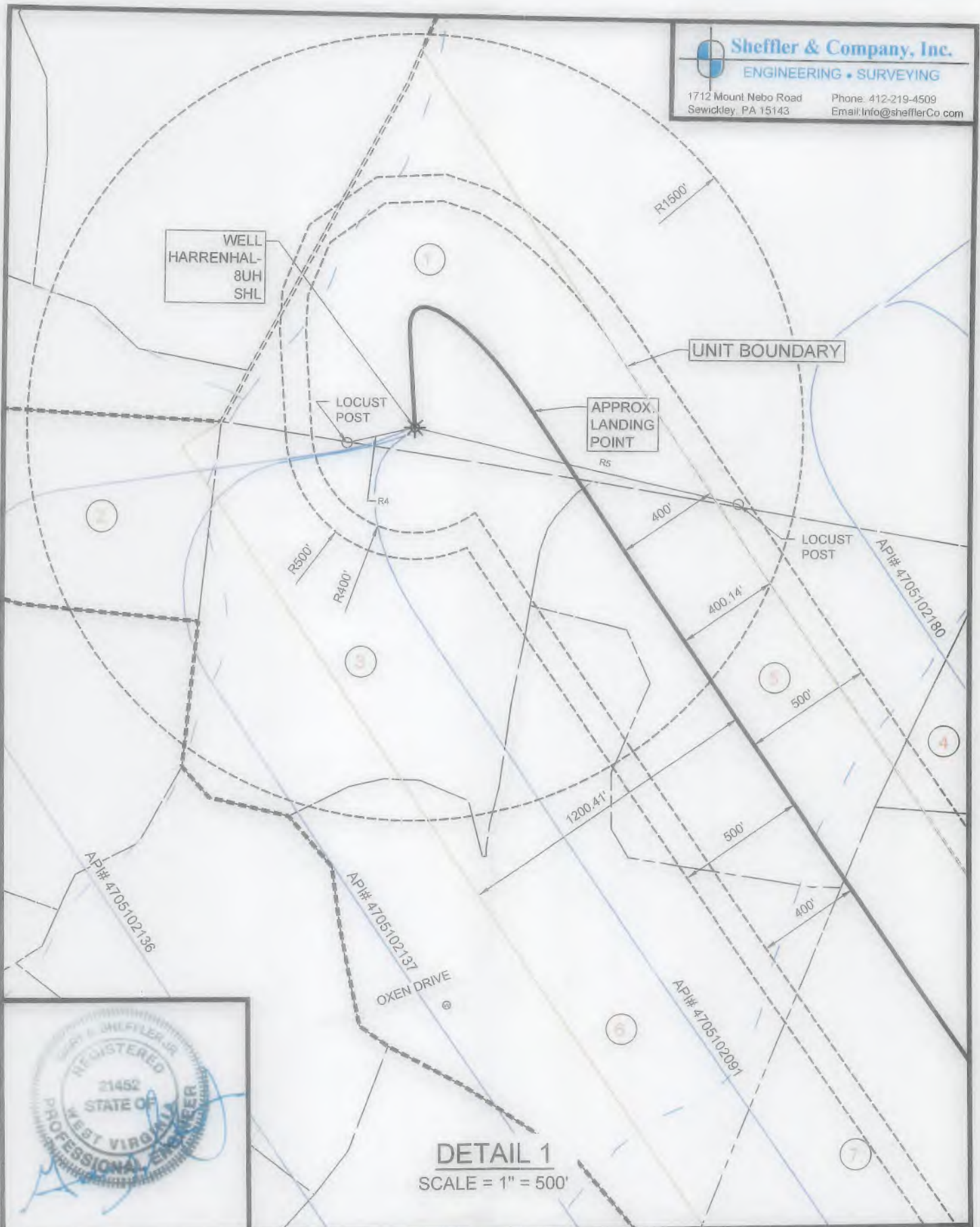
SHL is located on topo map 2,216 feet west of Longitude: 80° 37' 30"
 BHL is located on topo map 6,862 feet west of Longitude: 80° 35' 00"



Sheffler & Company, Inc.
ENGINEERING • SURVEYING

1712 Mount Nebo Road
Sewickley, PA 15143

Phone: 412-219-4509
Email: info@shefflerCo.com



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304



DATE: December 18, 2018 - REV - April 30, 2019

OPERATOR'S WELL #: HARRENHAL-8UH

API WELL #	<u>47</u>	<u>051</u>	<u>02090</u>
	STATE	COUNTY	PERMIT

H6A MOD

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

WATERSHED: WHEELING CREEK - UPPER OHIO RIVER ELEVATION 1,134.2'

COUNTY/DISTRICT: MARSHALL / WEBSTER QUADRANGLE MOUNDSVILLE, WV

SURFACE OWNER(1) APP MINERALS LLC ACREAGE(1) 183.31 SURFACE OWNER(2) ERIC G. DAILEY & NORMA C. PAYNE ACREAGE(2) 39.39

OIL & GAS ROYALTY OWNERS(1) APP MINERALS LLC ACREAGE(1) 183.31

OIL & GAS ROYALTY OWNERS(2) ERIC G. DAILEY & NORMA C. PAYNE ACREAGE(2) 39.39

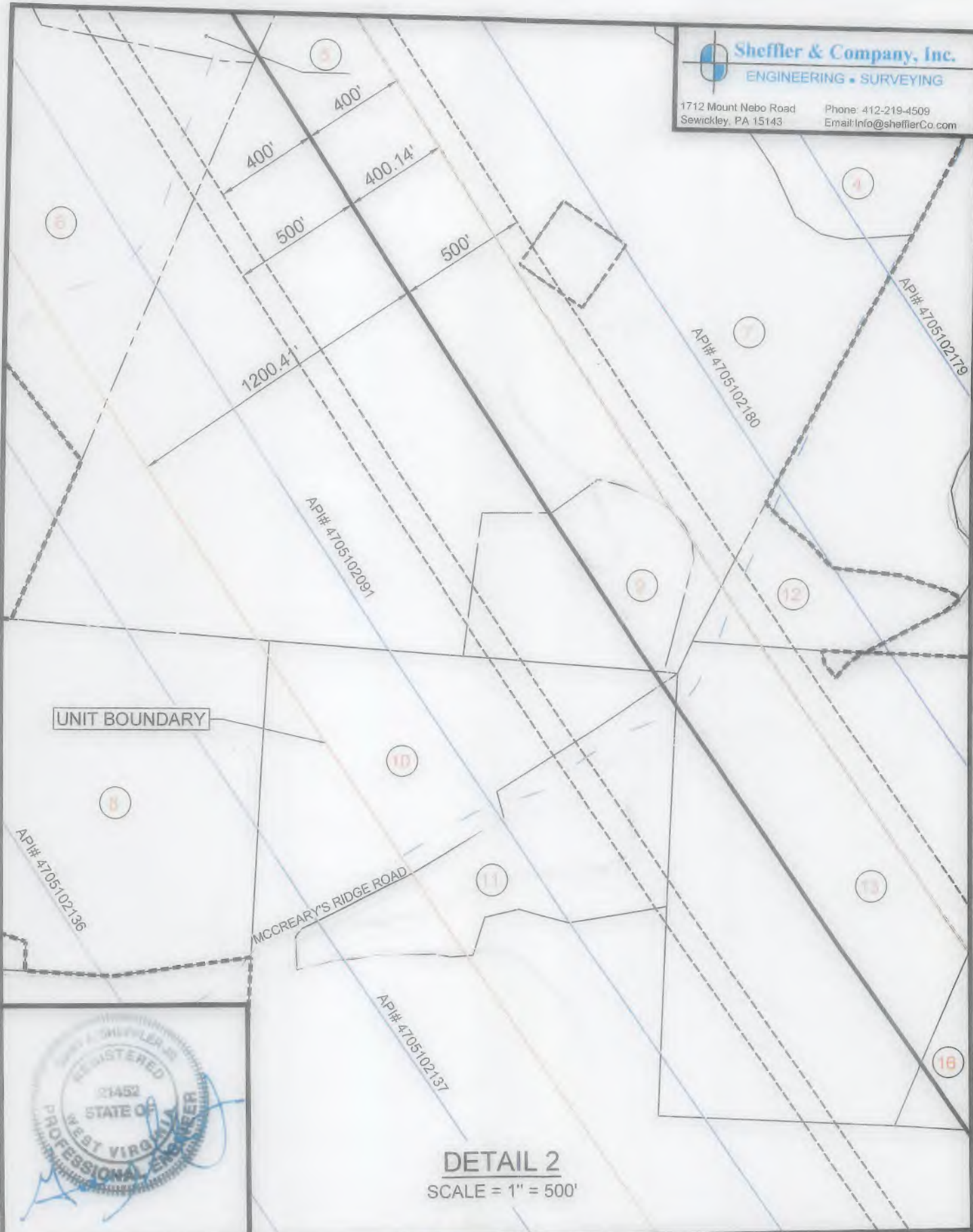
DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION POINT PLEASANT ESTIMATED DEPTH TVD: 11,395' ± TMD: 23,409' ±

WELL OPERATOR AMERICAN PETROLEUM PARTNERS OPERATING, LLC DESIGNATED AGENT STEVEN GREEN

Address 4600 J. BARRY COURT, SUITE 310 Address 300 SUMMERS ST, SUITE 1000

City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301



UNIT BOUNDARY

DETAIL 2
SCALE = 1" = 500'

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

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

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

WATERSHED WHEELING CREEK - UPPER OHIO RIVER ELEVATION: 1,134.2'

COUNTY/DISTRICT: MARSHALL / WEBSTER QUADRANGLE: MOUNDSVILLE, WV

SURFACE OWNER(1) APP MINERALS LLC ACREAGE(1) 183.31 SURFACE OWNER(2) ERIC G. DAILEY & NORMA C. PAYNE ACREAGE(2) 39.39

OIL & GAS ROYALTY OWNERS(1) APP MINERALS LLC ACREAGE(1) 183.31

OIL & GAS ROYALTY OWNERS(2) ERIC G. DAILEY & NORMA C. PAYNE ACREAGE(2) 39.39

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: POINT PLEASANT ESTIMATED DEPTH: TVD: 11,395' ± TMD: 23,409' ±

WELL OPERATOR: AMERICAN PETROLEUM PARTNERS OPERATING, LLC DESIGNATED AGENT: STEVEN GREEN

Address: 4600 J. BARRY COURT, SUITE 310 Address: 300 SUMMERS ST, SUITE 1000

City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301



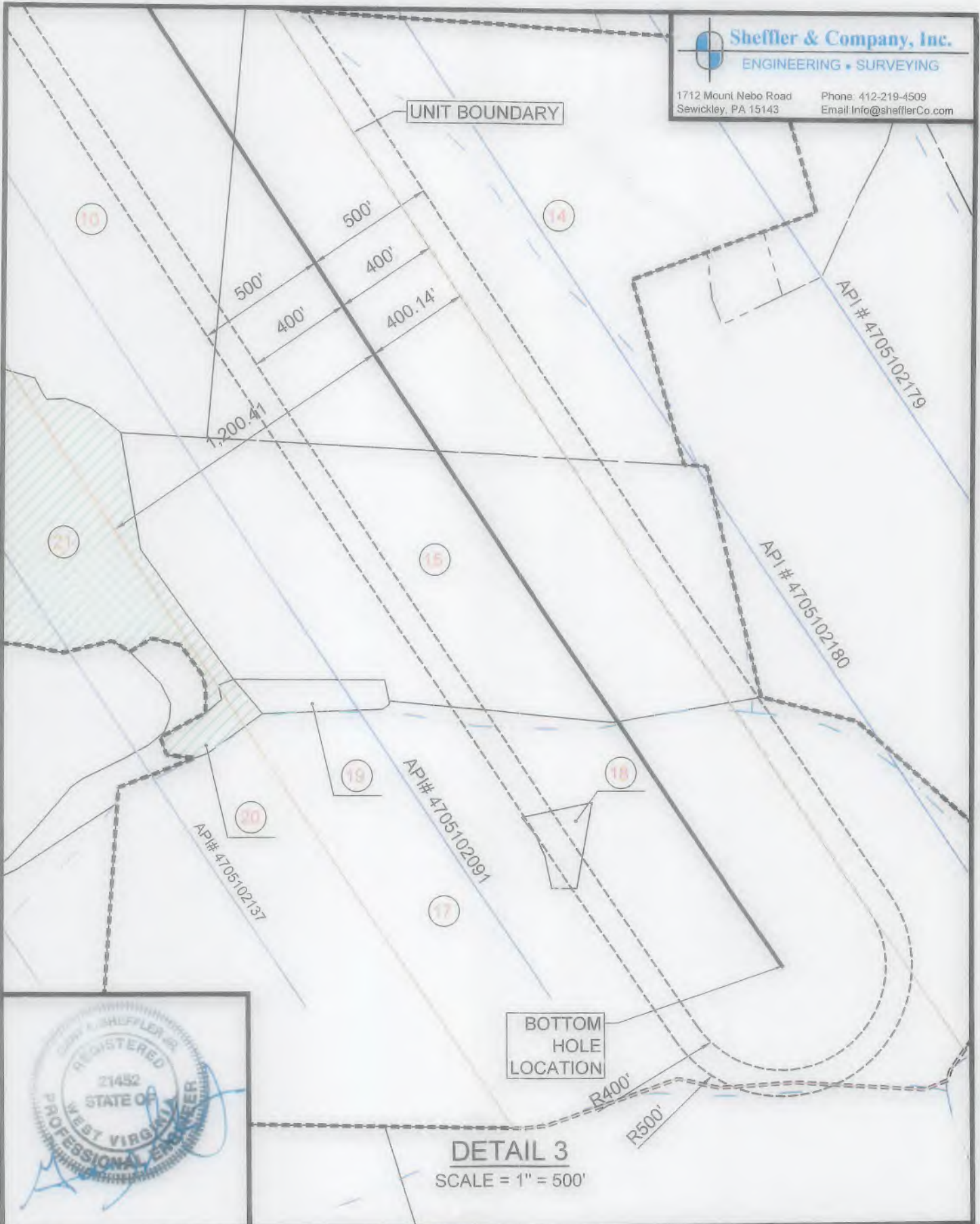
DATE: December 18, 2018 - REV - April 30, 2019

OPERATOR'S WELL #: HARRENHAL-8UH

API WELL #	<u>47</u>	<u>051</u>	<u>02090</u>
	STATE	COUNTY	PERMIT

H/A MOD

UNIT BOUNDARY



BOTTOM HOLE LOCATION

DETAIL 3
SCALE = 1" = 500'

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

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

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

WATERSHED: WHEELING CREEK - UPPER OHIO RIVER ELEVATION: 1,134.2'
COUNTY/DISTRICT: MARSHALL / WEBSTER QUADRANGLE: MOUNDSVILLE, WV
SURFACE OWNER(1): APP MINERALS LLC ACREAGE(1) 183.31 SURFACE OWNER(2): ERIC G. DAILEY & NORMA C. PAYNE ACREAGE(2) 39.39
OIL & GAS ROYALTY OWNERS(1): APP MINERALS LLC ACREAGE(1) 183.31
OIL & GAS ROYALTY OWNERS(2): ERIC G. DAILEY & NORMA C. PAYNE ACREAGE(2) 39.39

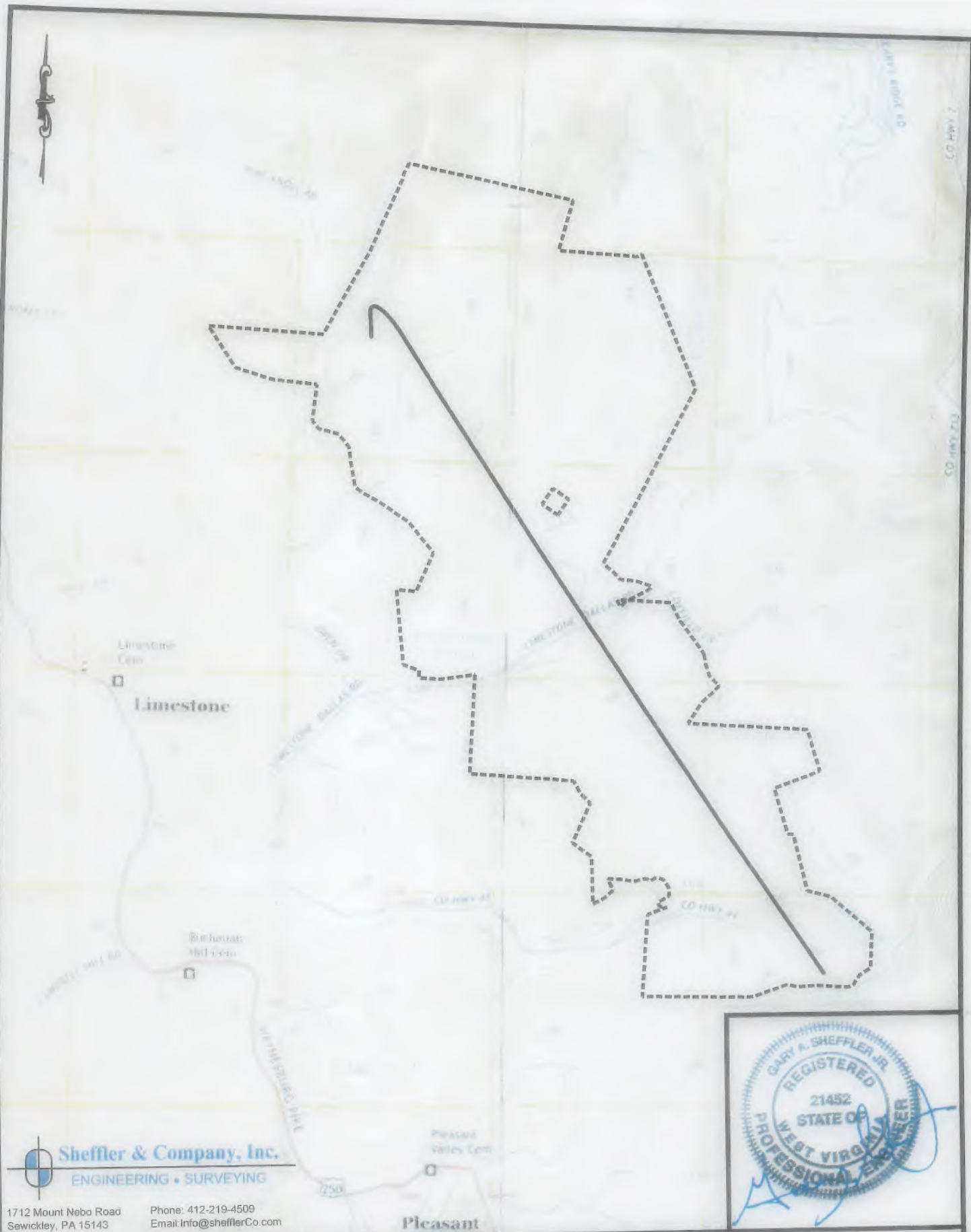
DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: POINT PLEASANT ESTIMATED DEPTH: TVD: 11,395' ± TMD: 23,409' ±
WELL OPERATOR: AMERICAN PETROLEUM PARTNERS OPERATING, LLC DESIGNATED AGENT: STEVEN GREEN
Address: 4600 J. BARRY COURT, SUITE 310 Address: 300 SUMMERS ST, SUITE 1000
City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301

DATE: December 18, 2018 - REV - April 30, 2019

OPERATOR'S WELL #: HARRENHAL-8UH
API WELL # 47 051 02090
STATE COUNTY PERMIT

MOB



Sheffler & Company, Inc.
ENGINEERING • SURVEYING
1712 Mount Nebo Road
Sewickley, PA 15143
Phone: 412-219-4509
Email: Info@shefflerCo.com



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304



DATE: December 18, 2018 - REV - April 30, 2019

OPERATOR'S WELL #: HARRENHAL-8UH

API WELL #	<u>47</u>	<u>051</u>	<u>02090</u> <i>McD</i>
	STATE	COUNTY	PERMIT

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

WATERSHED: WHEELING CREEK - UPPER OHIO RIVER ELEVATION: 1,134.2'

COUNTY/DISTRICT: MARSHALL / WEBSTER QUADRANGLE: MOUNDSVILLE, WV

SURFACE OWNER(1) APP MINERALS LLC ACREAGE(1) 183.31 SURFACE OWNER(2) ERIC G. DAILEY & NORMA C. PAYNE ACREAGE(2) 39.39

OIL & GAS ROYALTY OWNERS(1) APP MINERALS LLC ACREAGE(1) 183.31

OIL & GAS ROYALTY OWNERS(2) ERIC G. DAILEY & NORMA C. PAYNE ACREAGE(2) 39.39

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: POINT PLEASANT ESTIMATED DEPTH: TVD: 11,395' ± TMD: 23,409' ±

WELL OPERATOR: AMERICAN PETROLEUM PARTNERS OPERATING, LLC DESIGNATED AGENT: STEVEN GREEN

Address: 4600 J. BARRY COURT, SUITE 310 Address: 300 SUMMERS ST, SUITE 1000

City CANONSBURG State PA Zip Code 15317 City CHARLESTON State WV Zip Code 25301