

JOB # 16-005WA DRAWING # PIPER1HR SCALE 1" = 1000' MINIMUM DEGREE OF ACCURACY SUBMETER PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE 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 RULES ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.	WV DEPARTMENT OF ENVIRONMENTAL PROTECTION Surface Owner, Boundaries, Elevation Existing Surface Tracts +/- Existing Fence Labor, Found
STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS WELL TYPE: OIL ___ GAS <input checked="" type="checkbox"/> LIQUID INJECTION ___ WASTE DISPOSAL ___ (IF "GAS") PRODUCTION <input checked="" type="checkbox"/> STORAGE ___ DEEP ___ SHALLOW <input checked="" type="checkbox"/> LOCATION: ELEVATION 1,159' ORIGINAL - 1,143' AS DRILLED ___ WATERSHED NORTH FORK HUGHES RIVER QUADRANGLE PENNSBORO 7.5' DISTRICT CLAY COUNTY RITCHIE SURFACE OWNER DARRELL A. NOLAND ET AL ACREAGE 32.5 ACRES +/- OIL & GAS ROYALTY OWNER SEE ATTACHED PAGES FOR LEASE INFORMATION LEASE ACREAGE SEE ATTACHED PAGES	STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WILLOW LAND SURVEYING PLLC 266 HUSHERS RUN RD PENNSBORO WEST VIRGINIA 26410	THOMAS SUMMERS P.S. 2109 DATE 11/07/16 OPERATOR'S WELL # PIPER UNIT 1H API WELL # 47 - 085 - 10281 STATE COUNTY PERMIT
PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER <input checked="" type="checkbox"/> REDRILL ___ FRACTURE OR STIMULATE <input checked="" type="checkbox"/> PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION <input checked="" type="checkbox"/> OTHER PHYSICAL CHANGE IN WELL (SPECIFY) MOD-BHL PLUG & ABANDON CLEAN OUT & REPLUG TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,500' TVD 17,000 MD	WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT CT CORPORATION SYSTEM ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD DENVER, CO 80202 CHARLESTON, WV 25313	COUNTY NAME PERMIT

LATITUDE 39°20'00"

5,598'

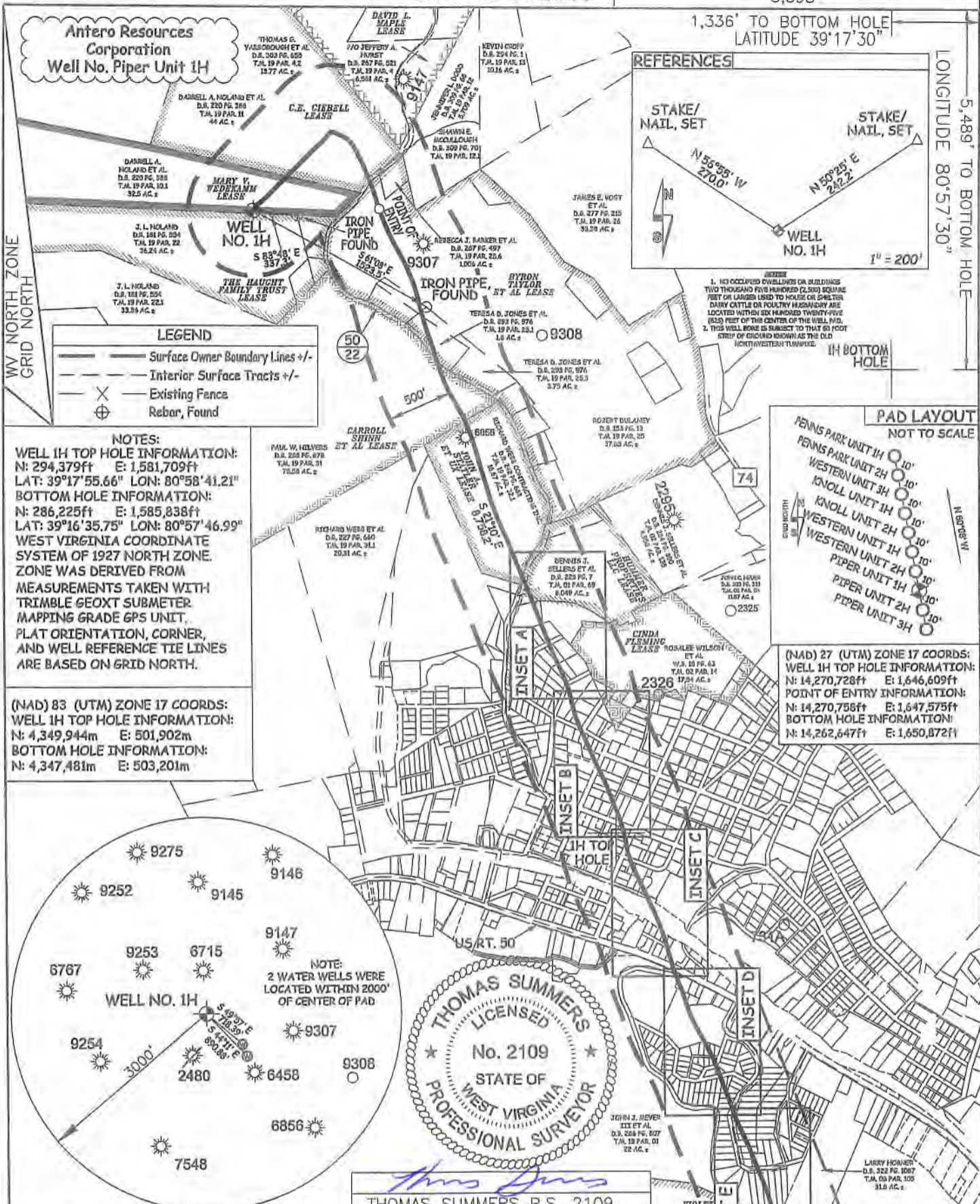
1,336' TO BOTTOM HOLE
LATITUDE 39°17'30"

LONGITUDE 80°57'30"

5,489' TO BOTTOM HOLE

12,580'

LONGITUDE 80°57'30"



LEGEND

- Surface Owner Boundary Lines +/-
- Interior Surface Tracts +/-
- Existing Fence
- Rebar, Found

NOTES:

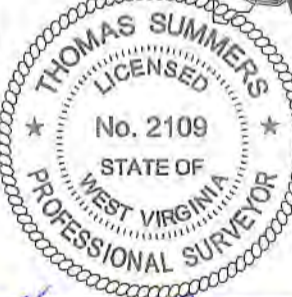
WELL 1H TOP HOLE INFORMATION:
N: 294,379ft E: 1,581,709ft
LAT: 39°17'55.66" LON: 80°58'41.21"

BOTTOM HOLE INFORMATION:
N: 286,225ft E: 1,585,838ft
LAT: 39°16'35.75" LON: 80°57'46.99"

WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 4,349,944m E: 501,902m

BOTTOM HOLE INFORMATION:
N: 4,347,481m E: 503,201m



THOMAS SUMMERS P.S. 2109

JOB # 16-005WA
DRAWING # PIPER1HMOD
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS
STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS
WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL
(IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X
LOCATION: ELEVATION 1,143' AS DRILLED WATERSHED NORTH FORK HUGHES RIVER
QUADRANGLE PENNSBORO 7.5 DISTRICT CLAY COUNTY RITCHIE
SURFACE OWNER DARRELL A. NOLAND ET AL ACREAGE 32.5 ACRES +/-
OIL & GAS ROYALTY OWNER SEE ATTACHED PAGES FOR LEASE INFORMATION LEASE ACREAGE SEE ATTACHED PAGES

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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

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

WILLOW LAND SURVEYING PLLC
266 HUSHERS RUN RD PENNSBORO WEST VIRGINIA 26415



DATE 01/18/18
OPERATOR'S WELL# PIPER UNIT 1H
API WELL # 47 085 10291 MID
STATE COUNTY PERMIT
WATERSHED NORTH FORK HUGHES RIVER
DISTRICT CLAY COUNTY RITCHIE
ACREAGE 32.5 ACRES +/-
LEASE ACREAGE SEE ATTACHED PAGES

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL
(SPECIFY) MOD-POE PLUG & ABANDON CLEAN OUT & REPLUG
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,421' TVD 15,742 MD
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT CT CORPORATION SYSTEM
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD
DENVER, CO 80202 CHARLESTON, WV 25313

LATITUDE 39°20'00"

5,598'

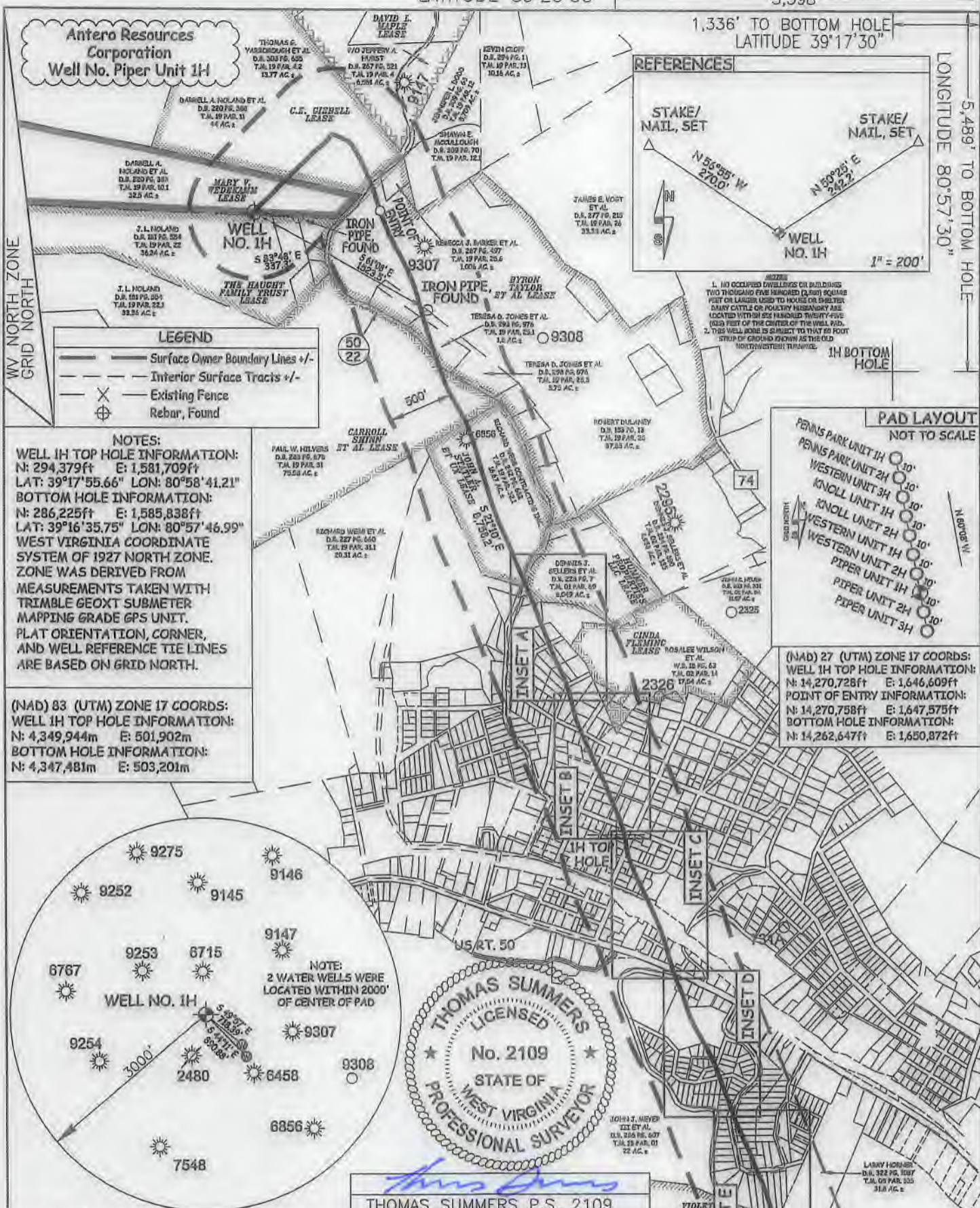
1,336' TO BOTTOM HOLE
LATITUDE 39°17'30"

LONGITUDE 80°57'30"

5,489' TO BOTTOM HOLE

12,580'

LONGITUDE 80°57'30"



LEGEND

- Surface Owner Boundary Lines +/-
- Interior Surface Tracts +/-
- Existing Fence
- Rebar, Found

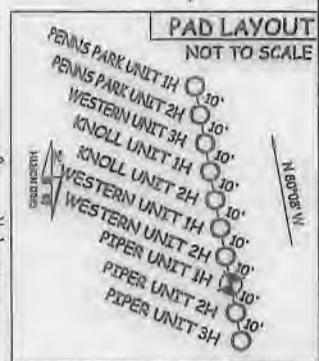
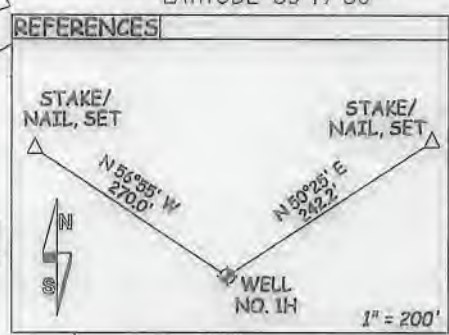
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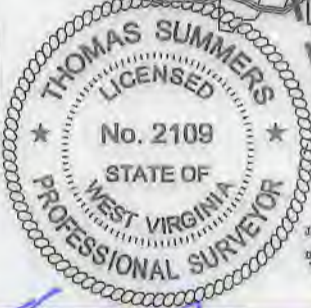
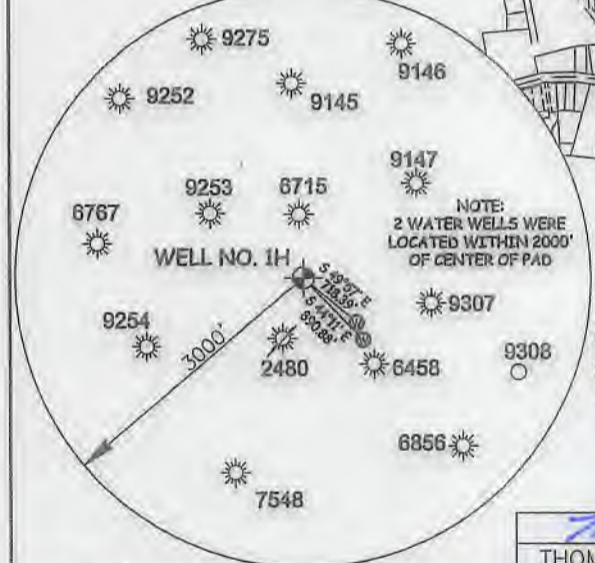
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(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 4,349,944m E: 501,902m
BOTTOM HOLE INFORMATION:
N: 4,347,481m E: 503,201m



(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 4,349,944m E: 501,902m
BOTTOM HOLE INFORMATION:
N: 4,347,481m E: 503,201m

(NAD) 27 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 14,270,728ft E: 1,646,609ft
POINT OF ENTRY INFORMATION:
N: 14,270,758ft E: 1,647,575ft
BOTTOM HOLE INFORMATION:
N: 14,262,647ft E: 1,650,872ft

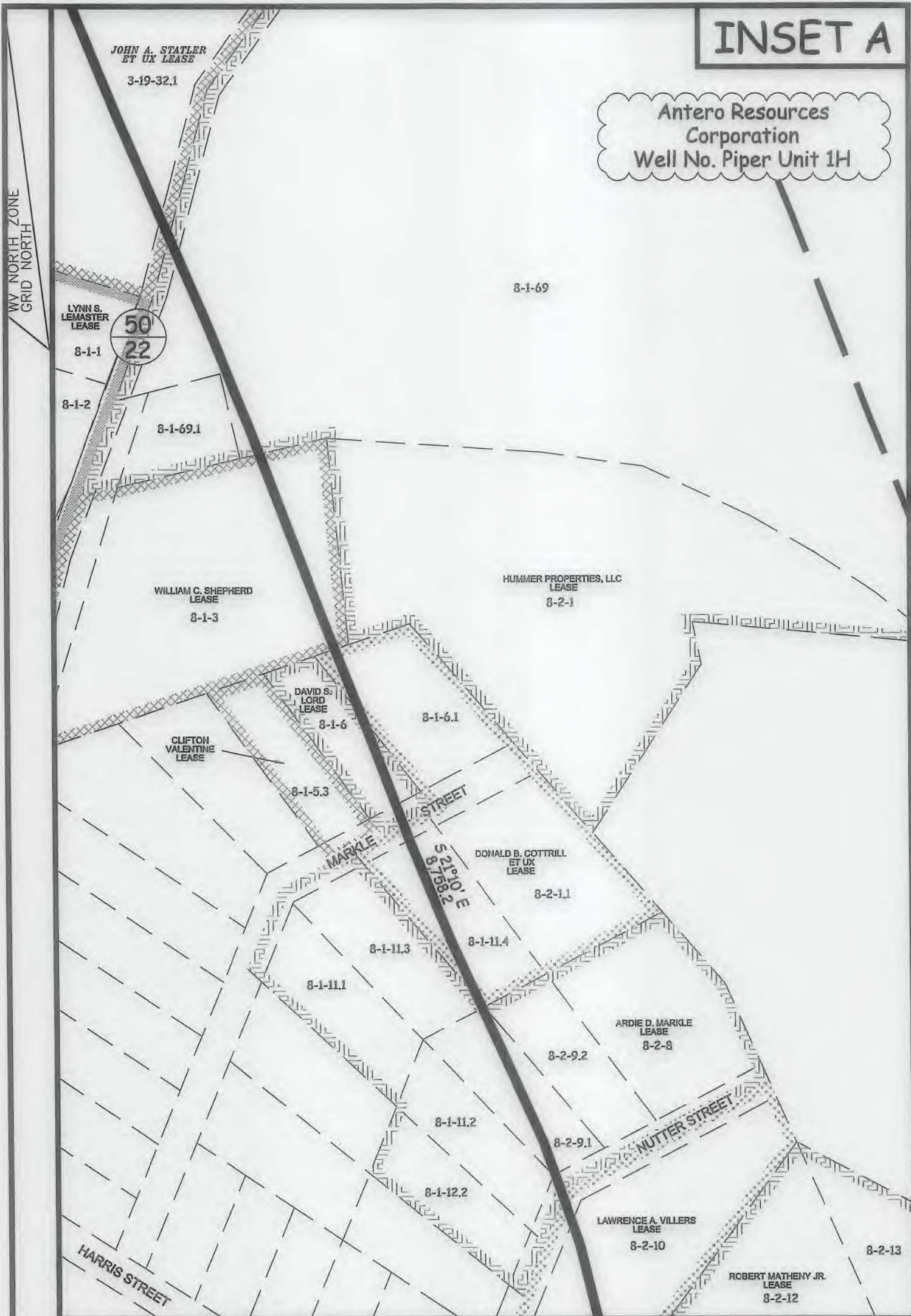


THOMAS SUMMERS P.S. 2109

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DRAWING # PIPER1HMOD	STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS	
SCALE 1" = 1000'	WILLOW LAND SURVEYING PLLC 266 HUSHERS RUN RD PENNSBORO WEST VIRGINIA 26415	
MINIMUM DEGREE OF ACCURACY SUBMETER	DATE 01/18/18	
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS	OPERATOR'S WELL# PIPER UNIT 1H	
STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS	API WELL # 47 - 085 - 10291	
WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL	STATE COUNTY PERMIT	
(IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW X	NORTH FORK HUGHES RIVER	
LOCATION: ELEVATION 1,143' AS DRILLED	DISTRICT CLAY COUNTY RITCHIE	
QUADRANGLE PENNSBORO 7.5'	ACREAGE 32.5 ACRES +/-	
SURFACE OWNER DARRELL A. NOLAND ET AL	LEASE ACREAGE SEE ATTACHED PAGES	
OIL & GAS ROYALTY OWNER SEE ATTACHED PAGES FOR LEASE INFORMATION	PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) MOD-POE	
TARGET FORMATION MARCELLUS	ESTIMATED DEPTH 6,421' TVD 15,742 MD	
WELL OPERATOR ANTERO RESOURCES CORP.	DESIGNATED AGENT DIANNA STAMPER	
ADDRESS 1615 WYNKOOP STREET	ADDRESS CT CORPORATION SYSTEM	
FORM WW-6 DENVER, CO 80202	ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313	

INSET A

Antero Resources Corporation
Well No. Piper Unit 1H



P.O. BOX 17
PENNSBORO, WV 26415
304-659-1717

SCALE: 1-INCH = 100-FEET



47-085-10291 MOD

FILE: 16-005WA
JOB: PIPER1HR INSETA MOD
DRAFTED BY: T.B.S. 02/01/18

LEGEND	
	Piper 1H Lateral
	Interior Surface Tracts +/-

INSET B

Antero Resources Corporation
Well No. Piper Unit 1H



P.O. BOX 17
PENNSBORO, WV 26415
304-659-1717

SCALE: 1-INCH = 100-FEET



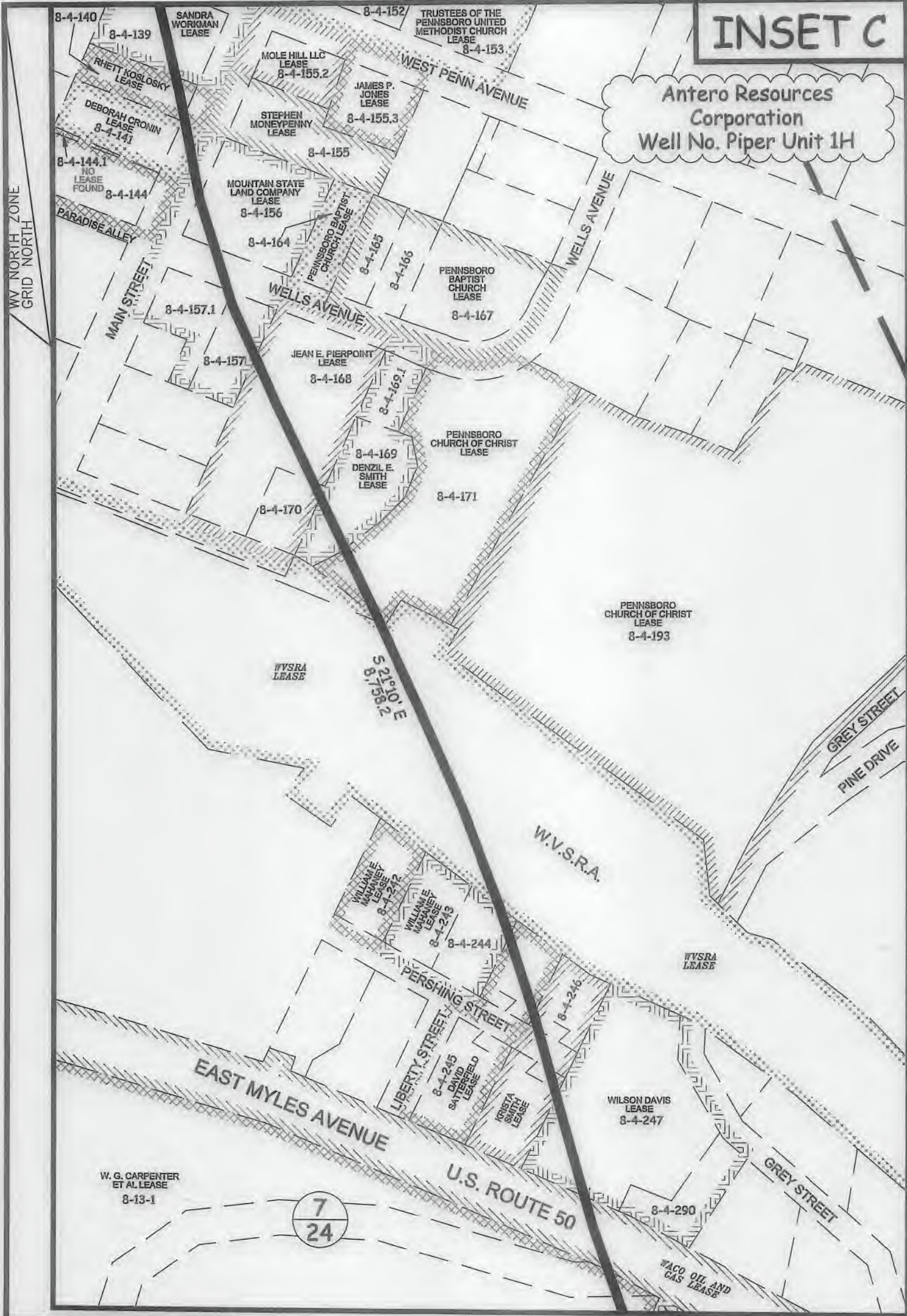
47-085-10291/MOD

FILE: 16-005WA
JOB: PIPER1HR INSETB MOD
DRAFTED BY: T.B.S. 02/01/18

LEGEND	
	Piper 1H Lateral
	Interior Surface Tracts +/-

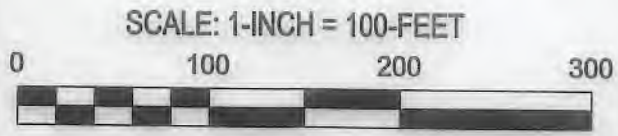
INSET C

Antero Resources Corporation
Well No. Piper Unit 1H



WILLOW
• LAND SURVEYING PLLC •

P.O. BOX 17
PENNSBORO, WV 26415
304-659-1717



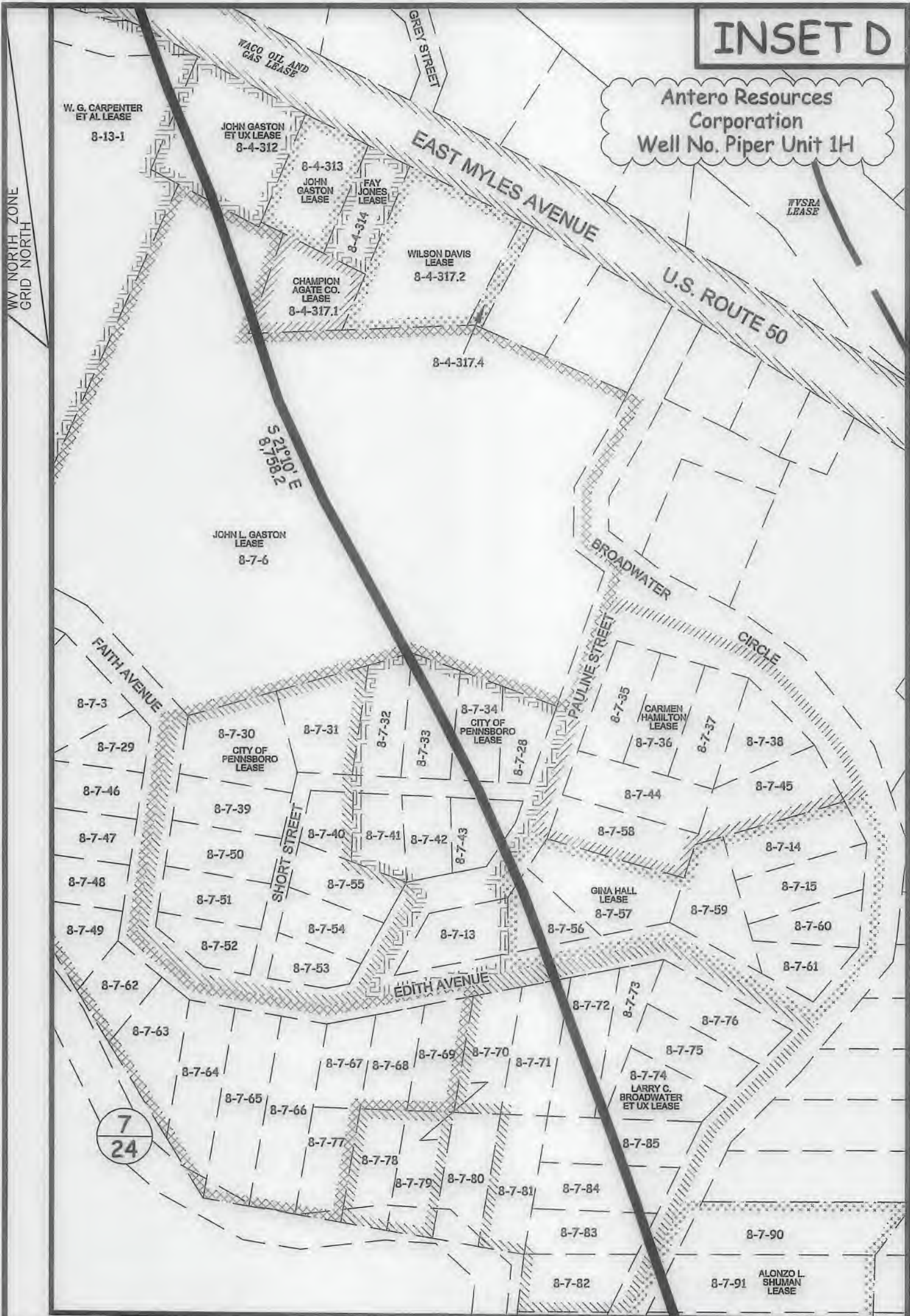
47-085-10291 MOD

FILE: 16-005WA
JOB: PIPER1HR INSETC MOD
DRAFTED BY: T.B.S. 02/01/18

LEGEND	
	Piper 1H Lateral
	Interior Surface Tracts +/-

INSET D

Antero Resources Corporation
Well No. Piper Unit 1H



47-085-10291 MOD



P.O. BOX 17
PENNSBORO, WV 26415
304-659-1717

SCALE: 1-INCH = 100-FEET

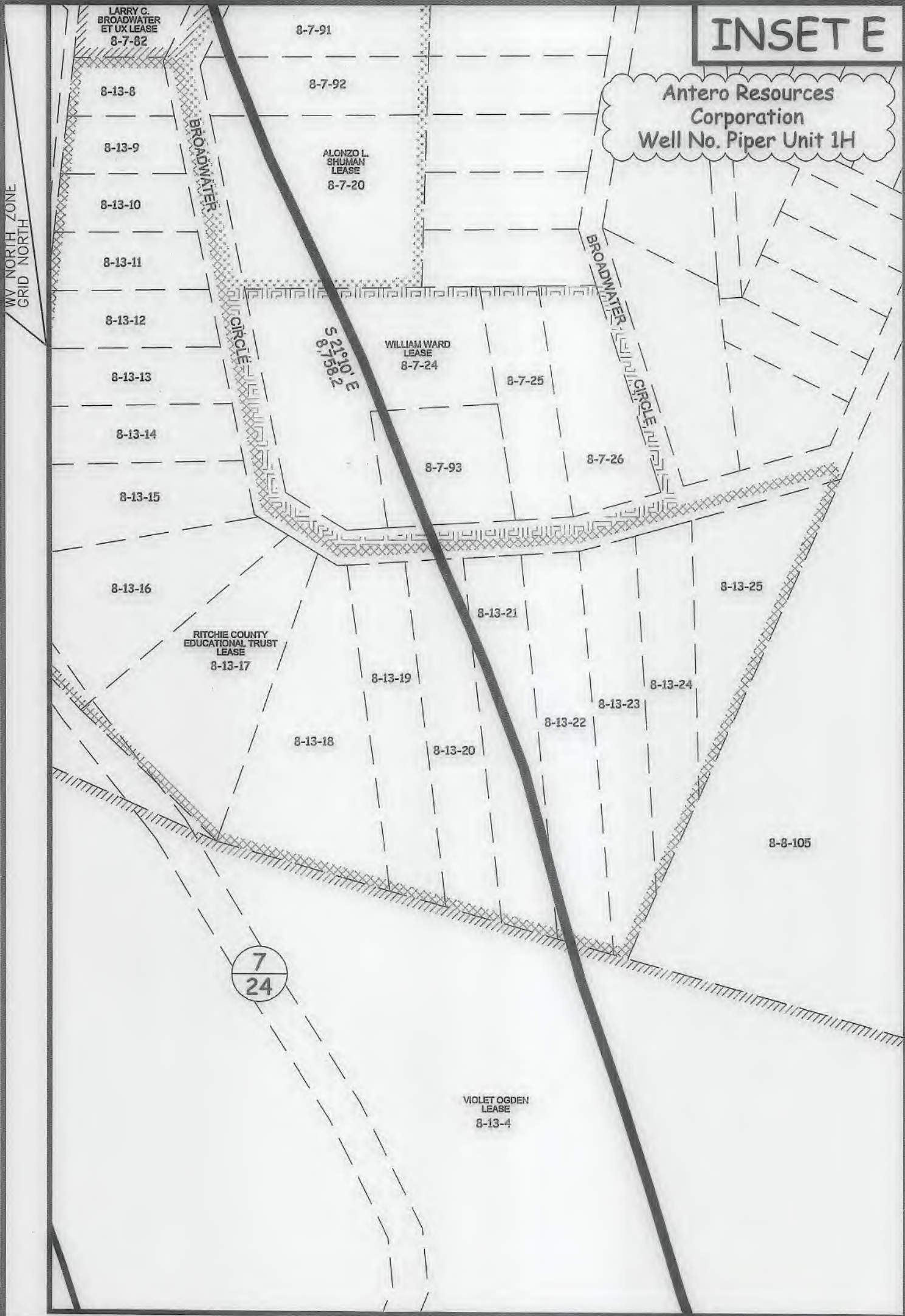


FILE: 16-005WA
JOB: PIPER1HR INSETD MOD
DRAFTED BY: T.B.S. 02/01/18

LEGEND	
	Piper 1H Lateral
	Interior Surface Tracts +/-

INSET E

Antero Resources Corporation
Well No. Piper Unit 1H



47-085-10291 MOD

WILLOW
• LAND SURVEYING PLLC •
P.O. BOX 17
PENNSBORO, WV 26415
304-659-1717

SCALE: 1-INCH = 100-FEET



FILE: 16-005WA
JOB: PIPER1HR INSETE MOD
DRAFTED BY: T.B.S. 02/01/18

LEGEND	
	Piper 1H Lateral
	Interior Surface Tracts +/-