Baseline Assessment – Stream Attributes

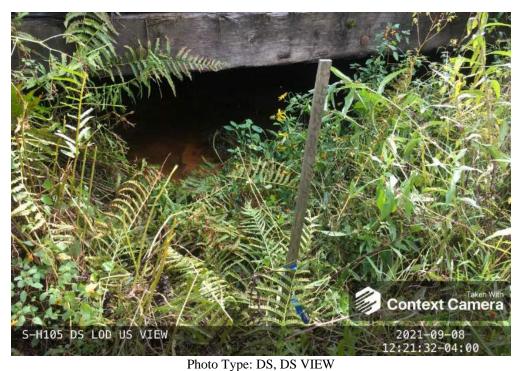
Reach S-H105 (Pipeline ROW) Perennial Spread C Webster County, West Virginia

Data	Included
Photos	✓
SWVM Form	✓
FCI Calculator and HGM Form	N/A – Perennial stream (not shadeable, slope <4%)
RBP Physical Characteristics Form	✓
Water Quality Data	✓
RBP Habitat Form	✓
RBP Benthic Form	✓
Benthic Identification Sheet	N/A - Lack of habitat
Wolman Pebble Count	✓
Reference Reach Software Pebble Count Data	√
Longitudinal Profile and Cross Sections	✓

Spread C Stream S-H105 (Pipeline ROW) Webster County



Photo Type: DS, US VIEW
Location, Orientation, Photographer Initials: Downstream Edge of ROW, Upstream View, HC/SK/JB
Lat: 38.548824 Long: -80.539644



Location, Orientation, Photographer Initials: Downstream Edge of ROW, Downstream View, HC/SK/JB
Lat: 38.548824 Long: -80.539644

Spread C Stream S-H105 (Pipeline ROW) Webster County



Photo Type: US View at Center Location, Orientation, Photographer Initials: Center ROW, Upstream View, HC/SK/JB Lat: 38.548824 Long: -80.539644



Photo Type: DS View at Center Location, Orientation, Photographer Initials: Center ROW, Downstream View, HC/SK/JB Lat: 38.548824 Long: -80.539644

Spread C Stream S-H105 (Pipeline ROW) Webster County



Photo Type: US, US View Location, Orientation, Photographer Initials: Upstream Edge of ROW, Upstream View, HC/SK/JB Lat: 38.548824 Long: -80.539644



Photo Type: US, DS View Location, Orientation, Photographer Initials: Upstream Edge of ROW, Downstream View, HC/SK/JB Lat: 38.548824 Long: -80.539644

	USACE FILE NO./ Project Name: (v2.1, Sept 2015)		Mountain	Valley Pipeline IMPACT COORDINAT (in Decimal Degrees		Lat.	at. 38.548824 Lon80.539644		WEATHER:	WEATHER: Sunny		DATE:	09/08	3/21	
Mathematical Production Mathematical Pro				S-ł	H105								Comments:		
Mathematical Control State	STREAM IMPACT LENGTH:	121		RESTORATION (Levels I-III)		Lat.		Lon.		PRECIPITATION PAST 48 HRS:			Mitigation Length:		
Property State Pro	Column No. 1- Impact Existing	g Condition (Deb	bit)	Column No. 2- Mitigation Existing C	ondition - Baseline (Credit)				e Years			ars	Column No. 5- Mitigation Projecte	d at Maturity (C	redit)
Mary	Stream Classification:	Perer	nnial	Stream Classification:			Stream Classification:		0	Stream Classification:	1	0	Stream Classification:	a	
Mary	Percent Stream Channel SI	lope	0.2	Percent Stream Channel Sic	оре		Percent Stream Channel	Slope	0	Percent Stream Channel S	lope	0	Percent Stream Channel SI	оре	0
Marting Mart	HGM Score (attach d	lata forms):		HGM Score (attach	data forms):	Ī	HGM Score (attac	ch data forms):		HGM Score (attach o	iata forms):		HGM Score (attach da	ta forms):	
Suppose Supp			Average		Average				Average			Average			Average
Mary	Hydrology														
### PMT1 - Physical Chemical and Biological Inductions			•		•				•			• •			
Martine Mart		Biological Indica	ators		d Biological Indicators		PART I - Physical, Chemical	and Biological I	ndicators	PART I - Physical, Chemical and	l Biological Indic	cators	PART I - Physical, Chemical and	Siological Indica	ators
Page		Points Scale Range	Site Score		Points Scale Range Site Score			Points Scale Ran	ge Site Score		Points Scale Range	Site Score		Points Scale Range	Site Score
Eginand Substantividation Coor 2-2	PHYSICAL INDICATOR (Applies to all streams	s classifications)		PHYSICAL INDICATOR (Applies to all streams of	classifications)		PHYSICAL INDICATOR (Applies to all stream	ms classifications)		PHYSICAL INDICATOR (Applies to all stream	s classifications)		PHYSICAL INDICATOR (Applies to all streams	classifications)	
2 Processor	USEPA RBP (High Gradient Data Sheet)			USEPA RBP (Low Gradient Data Sheet)			USEPA RBP (High Gradient Data Sheet)			USEPARBP (High Gradient Data Sheet)			USEPA RBP (High Gradient Data Sheet)		
Subscript Open Regime						-									
Section Decomption Section S						1									
S. Charried Flow States			5												
Charmed Albertein			11												
S. Bank S. Sability (LE A SR)	6. Channel Alteration		18	6. Channel Alteration	0-20		6. Channel Alteration	0-20		6. Channel Alteration	0-20		6. Channel Alteration	0-20	
	7. Frequency of Riffles (or bends)	0-20		7. Channel Sinuosity	0-20		7. Frequency of Riffles (or bends)	0-20		7. Frequency of Riffles (or bends)	0-20		7. Frequency of Riffles (or bends)	0-20	
10. Spart Specime	8. Bank Stability (LB & RB)	0-20	18	8. Bank Stability (LB & RB)	0-20		8. Bank Stability (LB & RB)	0-20		8. Bank Stability (LB & RB)	0-20		8. Bank Stability (LB & RB)	0-20	
Total RPB Score	9. Vegetative Protection (LB & RB)	0-20	18		0-20						0-20			0-20	
Sub-Total			16												
CHEMICAL NDICATOR (Applies to Intermitted and Personal Stream) CHEMICAL NDICATOR (Applies to		Marginal			Poor 0	4		Poor	0		Poor	•		Poor	
WOEP Water Quality Indicators (General Specific Conductivity Speci		at and Darannial Stre			ond December Streems)			tent and December	O C		ent and Darannial Ct			t and Darannial Str.	
Specific Conductivity			ealls)						Sireallis)			reams)			uns)
Section Column	Specific Conductivity	I)		WVDEP Water Quality Indicators (General) Specific Conductivity		-	WVDEP Water Quality Indicators (Gener Specific Conductivity	ral)		Specific Conductivity	el)		Specific Conductivity		
Martin M	Specific Colladictivity		20	Specific conductivity			Specific Conductivity			Specific conductivity			Specific conductivity		
6.6.30 = 80 portis 10 porti	<=99 - 90 points	0-90	33		0-90			0-90			0-90			0-90	
6.6.30 = 80 portis 10 porti	pH			pH			pH			pH			pH		
O	6 0 9 0 = 90 points	0-80	7.5		5-90	ı		5-90	1		5-90 0-1			5-90 0-1	
Sub-Total	6.0-8.0 = 80 points	_		no			no			no	_		no	_	
Sub-Total		10,30	4.7		10-30			10,30			10,30			10.30	
BIOLOGICAL INDICATOR (Applies to Intermittent and Persunial Streams) BIOLOGICAL INDICATOR (Applies to Intermittent and Persunial Streams) WV Stream Condition Index (WVSCI) WV Stream Condition Index (WVS				0.7.											
Washed W					0				-	Cub Total		-			
0 0 10 0 1		ttent and Perennial S	Streams)		ent and Perennial Streams)			rmittent and Pere	nnial Streams)	****	mittent and Perenr	nial Streams)		ttent and Perennia	al Streams)
Sub-Total	WV Stream Condition Index (WVSCI)	0.400		WV Stream Condition Index (WVSCI)	0.400		WV Stream Condition Index (WVSCI)	0.400		WV Stream Condition Index (WVSCI)	0.400		WV Stream Condition Index (WVSCI)	0.400	
PART II - Index and Unit Score Index In	0	0-100 0-1			0-100 0-1			0-100 0-	1		0-100 0-1			0-100 0-1	
Index Linear Feet Unit Score Unit Score Index Linear Feet Unit Score Unit Score Index Linear Feet Unit Score	Sub-Total		0	Sub-Total	0	J	Sub-Total		0	Sub-Total		0	Sub-Total		0
	PART II - Index and U	Unit Score		PART II - Index and	Unit Score		PART II - Index a	nd Unit Score		PART II - Index and (Unit Score		PART II - Index and U	nit Score	
0.723 121 87.4225 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Index	Linear Feet	Unit Score	Index	Linear Feet Unit Score		Index	Linear Fee	t Unit Score	Index	Linear Feet	Unit Score	Index	Linear Feet	Unit Score
	0.723	121	87.4225	0	0 0	1	0	0	0	0	0	0	0	0	0

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (FRONT)

STREAM NAME	LOCATION			
STATION # RIVERMILE	STREAM CLASS			
LAT LONG	RIVER BASIN			
STORET#	AGENCY			
INVESTIGATORS				
FORM COMPLETED BY	DATE	REASON FOR SURVEY		

WEATHER CONDITIONS	Now storm (heavy rain) rain (steady rain) showers (intermittent)	Past 24 hours Has there been a heavy rain in the last 7 days? Yes No Air Temperature0 C Other
SITE LOCATION/MAP	Draw a map of the site and indicate to the sit	RB S-H105
STREAM CHARACTERIZATION	Stream Origin	Stream Type Coldwater Warmwater Catchment Areakm² ed of origins

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET (BACK)

WATERSHED FEATURES	Forest Field/	Pasture Industrial Other	rcial	Local Watershed NPS I No evidence □ Som Obvious sources Local Watershed Erosi None Moderate	ne potential sources
RIPARIAN VEGETATION (18 meter buffer)	Trees	the dominant type and Si nt species present	hrubs		rbaceous
INSTREAM FEATURES	Estimate Samplin Area in Estimate	ed Stream Depth Velocitym	m m² km² m	High Water Mark Proportion of Reach Re Morphology Types	epresented by Stream Run% No
LARGE WOODY DEBRIS	LWD Density	m² of LWDm	n ² /km ² (LWD/	reach area)	
AQUATIC VEGETATION	Roote Floatii Domina	d emergent Ro ng Algae At	ooted submerge tached Algae		C
WATER QUALITY (DS ONLY)	Specific Dissolve pH Turbidi	ature0 C Conductance d Oxygen by trument Used		Fishy Water Surface Oils Slick Sheen	Chemical Other Globs Flecks red)
SEDIMENT/ SUBSTRATE	Odors Norma Chem Other Other	ical Anaerobic		L ρoking at stones which are the undersides black	Paper fiber Sand Other h are not deeply embedded, k in color?
	UBSTRATE (ld add up to 1	COMPONENTS 00%)		ORGANIC SUBSTRATE CO	
Substrate Type Dia	meter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock Boulder > 256 mm (10")		Detritus	sticks, wood, coarse plant materials (CPOM)	

HABITAT ASSESSMENT FIELD DATA SHEET - HG - USE ON ALL STREAMS (FRONT)

STREAM NAME	LOCATION	
STATION # RIVERMILE	STREAM CLASS	
LAT LONG	RIVER BASIN	
STORET#	AGENCY	
INVESTIGATORS		
FORM COMPLETED BY	DATE AM PM	REASON FOR SURVEY

	Habitat		Condition	ı Category				
	Parameter	Optimal	Suboptimal	Marginal	Poor			
	1. Epifaunal Substrate/ Available Cover	Greater than 70% of substrate favorable for epifaunal colonization and fish cover; mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (i.e., logs/snags that are not new fall and not transient).	40-70% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale).	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.			
	SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0			
n sampling reach	2. Embeddedness	Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble, and boulder particles are 25- 50% surrounded by fine sediment.	Gravel, cobble, and boulder particles are 50- 75% surrounded by fine sediment.	Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.			
ted in	SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0			
Parameters to be evaluated in sampling reach	3. Velocity/Depth Regime	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow). (Slow is < 0.3 m/s, deep is > 0.5 m.)	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).			
ıram	SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0			
Pa	4. Sediment Deposition	Little or no enlargement of islands or point bars and less than 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions, and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.			
	SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0			
	5. Channel Flow Status	Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.	Water fills >75% of the available channel; or <25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	channel and mostly			
	SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0			

HABITAT ASSESSMENT FIELD DATA SHEET—HIGH GRADIENT STREAMS (BACK)

	Habitat		Conditi	on Category					
	Parameter	Optimal	Suboptimal	Marginal	Poor				
	6. Channel Alteration	Channelization or dredging absent or minimal; stream with normal pattern.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present.	Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted.	Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.				
	SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0				
oling reach	7. Frequency of Riffles (or bends)	Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key. In streams where riffles are continuous, placement of boulders or other large, natural obstruction is important.	Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.	Occasional riffle or bend; bottom contours provide some habitat; distance between riffles divided by the width of the stream is between 15 to 25.	Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of >25.				
samp	SCORE	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0				
Parameters to be evaluated broader than sampling reach	8. Bank Stability (score each bank) Note: determine left or right side by facing downstream.	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. <5% of bank affected.	Moderately stable; infrequent, small areas of erosion mostly healed over. 5-30% of bank in reach has areas of erosion	areas of erosion; high erosion potential during	Unstable; many eroded areas; "raw" areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars.				
e eva	SCORE (LB)	Left Bank 10 9	8 7 6	5 4 3	2 1 0				
to be	SCORE (RB)	Right Bank 10 9	8 7 6	5 4 3	2 1 0				
Parameters	9. Vegetative Protection (score each bank)	More than 90% of the streambank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70-90% of the streambank surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potentia to any great extent; more than one-half of the potential plant stubble height remaining.	50-70% of the streambank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the streambank surfaces covered by vegetation; disruption of streambank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.				
	SCORE (LB)	Left Bank 10 9	8 7 6	5 4 3	2 1 0				
	SCORE (RB)	Right Bank 10 9	8 7 6	5 4 3	2 1 0				
	10. Riparian Vegetative Zone Width (score each bank riparian zone)	Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.	Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.	Width of riparian zone 6- 12 meters; human activities have impacted zone a great deal.	Width of riparian zone <6 meters: little or no riparian vegetation due to human activities.				
	SCORE (LB)	Left Bank 10 9	8 7 6	5 4 3	2 1 0				
1	SCORE (RB)	Right Bank 10 9	8 7 6	5 4 3	2 1 0				

Total	Caama	
i otai	Score	

BENTHIC MACROINVERTEBRATE FIELD DATA SHEET

STREAM NAME		LOCATION				
STATION #	_ RIVERMILE	STREAM CLASS				
LAT	LONG	RIVER BASIN				
STORET#		AGENCY				
INVESTIGATORS			LOT NUMBER			
FORM COMPLETED BY		DATE REASON FOR SURVEY TIME				
HABITAT TYPES Indicate the percentage of each habitat type present Cobble % Snags % Vacastated Bonks % Sond %						

HABITAT TYPES	Indicate the percentage of each habitat type present Cobble% Snags% Vegetated Banks% Sand% Submerged Macrophytes% Other ()%
SAMPLE COLLECTION	Gear used D-frame kick-net Other
	How were the samples collected? wading from bank from boat
	Indicate the number of jabs/kicks taken in each habitat type. Cobble Snags Vegetated Banks Sand Submerged Macrophytes Other ()
GENERAL COMMENTS	

QUALITATIVE LISTING OF AQUATIC BIOTA

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare, 2 = Common, 3= Abundant, 4 = Dominant

Periphyton	0	1	2	3	4	Slimes	0	1	2	3	4
Filamentous Algae	0	1	2	3	4	Macroinvertebrates	0	1	2	3	4
Macrophytes	0	1	2	3	4	Fish	0	1	2	3	4

FIELD OBSERVATIONS OF MACROBENTHOS

Indicate estimated abundance: 0 = Absent/Not Observed, 1 = Rare (1-3 organisms), 2 = Common (3-9 organisms), 3 = Abundant (>10 organisms), 4 = Dominant (>50 organisms)

Porifera	0	1	2	3	4	Anisoptera	0	1	2	3	4	Chironomidae	0	1	2	3	4
Hydrozoa	0	1	2	3	4	Zygoptera	0	1	2	3	4	Ephemeroptera	0	1	2	3	4
Platyhelminthes	0	1	2	3	4	Hemiptera	0	1	2	3	4	Trichoptera	0	1	2	3	4
Turbellaria	0	1	2	3	4	Coleoptera	0	1	2	3	4	Other	0	1	2	3	4
Hirudinea	0	1	2	3	4	Lepidoptera	0	1	2	3	4						
Oligochaeta	0	1	2	3	4	Sialidae	0	1	2	3	4						
Isopoda	0	1	2	3	4	Corydalidae	0	1	2	3	4						
Amphipoda	0	1	2	3	4	Tipulidae	0	1	2	3	4						
Decapoda	0	1	2	3	4	Empididae	0	1	2	3	4						
Gastropoda	0	1	2	3	4	Simuliidae	0	1	2	3	4						
Bivalvia	0	1	2	3	4	Tabinidae	0	1	2	3	4						
						Culcidae	0	1	2	3	4						

WOLMAN PEBBLE COUNT FORM

County: Webster Stream ID: S-H105

Stream Name: UNT to Camp Creek

HUC Code:

Basin:

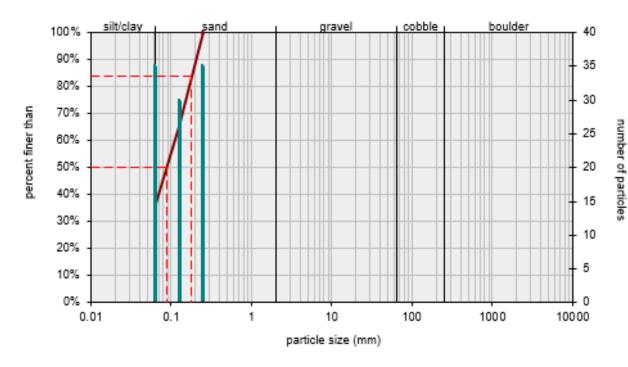
Survey Date: 9/8/2021

Surveyors: HC JB SK Reach 21.5 m

Type: Bankfull Channel

		FE	BBLE COUNT		ı		
Inches	PARTICLE	Millimeters		Particle Count	Total #	Item %	% Cu
	Silt/Clay	< .062	S/C	A	35	35.00	35.00
	Very Fine	.062125		A	30	30.00	65.00
	Fine	.12525		A	35	35.00	100.0
	Medium	.255	SAND	A	0	0.00	100.0
	Coarse	.50-1.0	1	A	0	0.00	100.0
.0408	Very Coarse	1.0-2	1	A	0	0.00	100.0
.0816	Very Fine	2 -4		A	0	0.00	100.0
.1622	Fine	4 -5.7	1	A	0	0.00	100.0
.2231	Fine	5.7 - 8	1	A	0	0.00	100.0
.3144	Medium	8 -11.3	1	A	0	0.00	100.0
.4463	Medium	11.3 - 16	GRAVEL	<u> </u>	0	0.00	100.0
.6389	Coarse	16 -22.6	1	<u> </u>	0	0.00	100.0
.89 - 1.26	Coarse	22.6 - 32	1	A	0	0.00	100.0
.26 - 1.77	Vry Coarse	32 - 45	1	A	0	0.00	100.0
1.77 -2.5	Vry Coarse	45 - 64	1	<u> </u>	0	0.00	100.0
2.5 - 3.5	Small	64 - 90		A	0	0.00	100.0
3.5 - 5.0	Small	90 - 128	1	A	0	0.00	100.0
5.0 - 7.1	Large	128 - 180	COBBLE	A	0	0.00	100.0
7.1 - 10.1	Large	180 - 256	1	A	0	0.00	100.0
0.1 - 14.3	Small	256 - 362		<u> </u>	0	0.00	100.0
14.3 - 20	Small	362 - 512	1	<u> </u>	0	0.00	100.0
20 - 40	Medium	512 - 1024	BOULDER	<u> </u>	0	0.00	100.0
40 - 80	Large	1024 -2048	1	<u> </u>	0	0.00	100.0
80 - 160	Vry Large	2048 -4096	1	<u> </u>	0	0.00	100.0
	Bedrock		BDRK	<u> </u>	0	0.00	100.0
				Totals:	100		

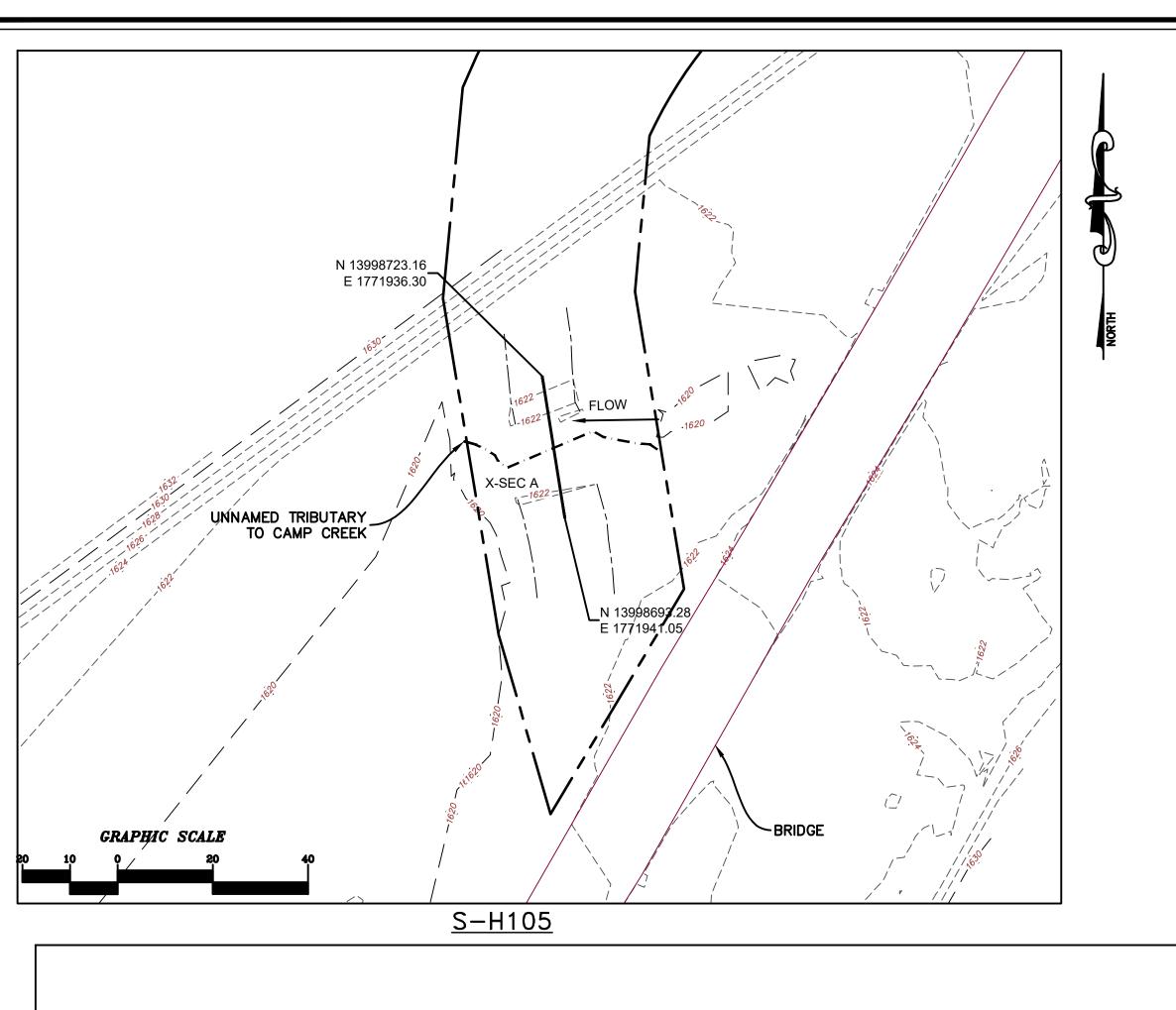


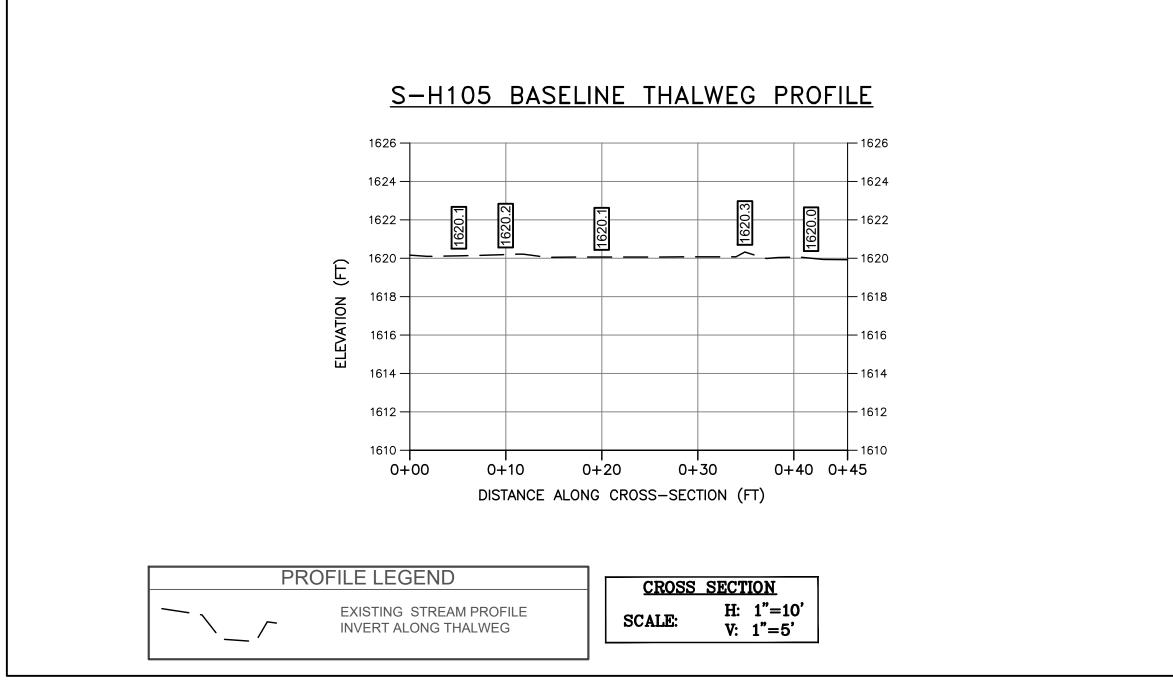


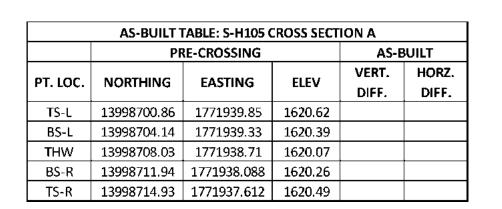
Size ((mm)
D16	0.062
D35	0.062
D50	0.088
D65	0.13
D84	0.18
D95	0.23

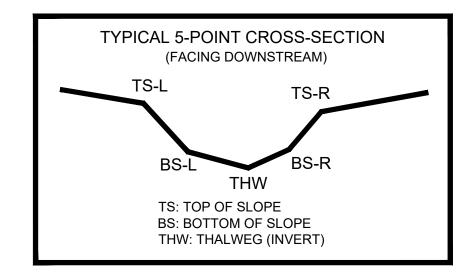
Size Distribution					
mean	0.1				
dispersion	1.7				
skewness	0.12				

silt/clay	35%	
sand	65%	
gravel	0%	
cobble	0%	
boulder	0%	









SURVEY NOTES:

LEGEND

STUDY AREA (EASEMENT)

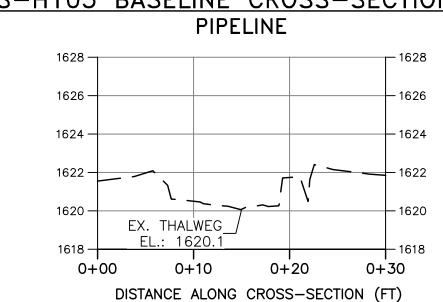
1176.87 十

EXISTING SURVEY-LOCATED THALWEG

EXISTING SURVEYED GROUND SHOT ELEVATION

- 1. THIS MAP HAS BEEN ORIENTED TO NAD 1983 UTM ZONE 17N, AND VERTICALLY TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), USING REAL TIME DGPS. FIELD LOCATIONS WERE COMPLETED ON SEPTEMBER 8, 2021.
- 2. EASEMENT LINES SHOWN ON PLAN VIEW WERE PROVIDED BY MOUNTAIN VALLEY PIPELINE.
- 3. SURVEY POINTS FOR CROSS SECTIONS AND THALWEG PROFILES COLLECTED IN 2021 HAVE BEEN USED IN COMBINATION WITH SURVEY POINTS COLLECTED PREVIOUSLY IN 2020 IN ORDER TO GENERATE THE PRE-CROSSING SURFACE SHOWN IN PLAN. DUE TO NATURAL EROSIONAL STREAM PROCESSES THAT CAN OCCUR OVER TIME, MINOR ADJUSTMENTS TO THE PROFILE ALIGNMENTS MAY HAVE BEEN REQUIRED IN ORDER TO GENERATE A CLEAN PRE-CROSSING SURFACE.
- 4. ALL SECTION VIEWS SHOWN LEFT TO RIGHT FACING DOWNSTREAM.
- 5. POST-CROSSING SURVEY INFORMATION SHOWN IN RED. DATA PENDING.
- 6. POST-CROSSING SURVEY POINTS FOR CROSS SECTIONS AND THALWEG ARE PROJECTED ONTO PRE-CROSSING SECTION AND PROFILE VIEWS FOR COMPARISON.

S-H105 BASELINE CROSS-SECTION A **PIPELINE** 1628 — - 1626 1624 1622 -EX. THALWEG 0+10



CROSS SECTION

H: 1"=10' V: 1"=5'

NOTE: ALL SECTIONS VIEWS SHOWN LEFT TO RIGHT FACING DOWNSTREAM.

PRE-CROSSING PHOTOS



PHOTO TAKEN LOOKING DOWNSTREAM FROM UPSTREAM IMPACT LIMITS



DOWNSTREAM IMPACT LIMITS

POST-CROSSING PHOTOS

PENDING CROSSING

PHOTO TAKEN LOOKING DOWNSTREAM FROM UPSTREAM IMPACT LIMITS

PENDING CROSSING

PHOTO TAKEN LOOKING UPSTREAM FROM

PRE-CROSSING

DOWNSTREAM IMPACT LIMITS

CAD File No.

Drawing No

CROSS SECTION LEGEND — EXISTING GRADE