WATERBODY DA	ATA - Page 1 of 1	Stream ID No.:	17	GPS File		MILE	POST:	_
Date:	01	Client/Project Name: Roc	kies Express	Project	#: 04060-018-	A (029.6	
4/25) Staff:	0.6	Pipeline Project (REX-Wes State/County/Municipality		_{				
44		Charton Co		LOOP/F/	ACILITY NAME	:		
Logbook page No's.:	00 50	Block/	7.60	Photo N		Upstr	Dnst	-
STREAM Sketch Plan (inc	clude surrounding area	Lot/Tract No.:		(1)	08,-W	100	10- N 3	Joseph-
h &		bank 85					ide que	-
1		1203	7 libani	٠	· · · · · · ·)	1)(1)	
	4			£				
		17.7	Jan -					
			77.00		4			
			<i>N</i> :		***************************************			
		19 100:	17:			٠,		
Hrib to a	rand Rive	2.						
Stream Flow	Fast (Perennial)	Moderate	Slow		Pooled	- i	Vone	
Pro Date Control	<u> </u>	Intermittent	Ephemeral		Direction of	Flow:	5	
Flow Depth (in.)	0 0-3	3-6 6-12	12-24	24-36×	36-48	48-60	60 +	7
Stream Width at Crossin	g (ft.) Top of Banks	: 100 Channe	el OWHM: C	75 '	Water Sur	face: 5	351	- 7
Stream Substrate %	Bedrock %	Gravel %	Sand 7-6	%	Silt/Clay 3/		Organic %	J T
Bank Height (ft.)	Left 0-2	2-4	4-6		6-8			J T
(looking downstream)	Right 0-2	2-4)	4-6		6-8		+	-
Bank Slope (%) (looking downstream)	Left 0-20 Right 0-20	20-40 20-40	(40-60)		60-80	8	0+]]
Water Clarity	Clear		40-60		60-80	[6	0+)]
	Clear	Slightly Turbid	Turbid	(Very Turbid	С	olor: DVOA	DA
Aquatic Habitat Undercut Banks	Sand Bar NO Overhanging	Gravel Bar AO	Mud Bar	yes	Gravel Riffles	no D	eep Pools 110	
ges-	trees/shrubs	plants MO	In-stream sut plants p	がmergent でつ	Bank root systems	Fi	ringing /	
Aquatic Organisms	Waterfowl	Fish (adult)	Fish (juvenile					
Observed	Snakes	Unvertebrates	Other: //	155el	Frogs)	1 To	urtles 	
T/E SPECIES / SUITABLE	HABITAT	1 1 2 2 2 2				,		
110 11 6 00	2) MODATO	nd bank	-, per)==(1/1)	ruia N	Shru	bs	
RIPARIAN VEGETATION D	DESCRIPTION							
1 HATUR CARRY SP	, totentilla	Posalix evice	<u></u>					
Comments (e.g. pipeline c	rossing angle construc	tion constraint		g disturban	ices, meanders	Or width	Variation	
peune cro	issing angle	perpendicula	of tro	A1000	~ SVI	/ C /	variations	
Wetland						< $<$ $<$ $<$ $<$ $<$ $<$ $<$ $<$ $<$	7.e	
STREAM QUALITY (circle)	High	Medium		Low			
High Quality - no indication of the high Quality - no indication of the high quality o	vildlife habitat – grave	nce in stream or adjacent I beds, submerged logs, ur	area – diverse	and mature	fringing shrub	-dominat	ed cover -	
vieulum Quaimv - mild to	moderate disturbances	ropula in					1	1
provides fair fish and wildli and depth variation restrict	re nabitat – some ero: ed – some channeliza:	sion potential - some hab tion - trees, grass or fort	itat diversity -	fine sedim	ent deposition	ıııroad, o predomir	tner HUWs -	į
.ow quality - disturbance	s cause significant abo		o dominate Da	ik vegeratio	on			
ntense grazing activities – nigh erosion potential – flo	stream course channe	elization or ditching - exot	tic, nuisance, o	r invasive s	of plant specie pecies – habit	s and/or at divers	soils -	-
nigh erosion potential – flo regetation	s.a coper variation	racking - does not provide	suitable wildlif	e habitat -	grass or forbs	dominat	e bank	!

'age 1 of 1

WETLAND DE	ELINEATION F	ORM (1987	7 USACE MI	ETHOD)	Site ID No.: [A]	4A.CI	0791	Milepost::	1.00		
Date: 4/2	5106		GPS FILE:		2509A	77.4.	02-11	micposi	02900		
Staff: L-A			Client/Project	Client/Project Name: Rockies Express Pipeline Project (REX-West) 04060-018-110							
Logbook Page No	s.: BOOK	2 pg. 5		Block/Lot/Tract No.: C1 - OOH Photo No's.: DN Ø							
Nearest Waterway		arand	Watershed: Arand R. Drainage Basin:								
Loop/Facility:		J		State/County/Municipality: C 1							
DOMINARY DI AL	IT SPECIES (% Cov			Т			2/12		T		
1. COX (PY	atherode	\$ (75)	Stratum	Indicator OP-L-	1. UNK	PLANT SPECIES	(% Cover)	Stratum	Indicator		
		wstris i	(s) H	OBL	2.	1. 3 hru	10-210		EFAC		
3.				CH 3 Same	3.			•			
4.					4.	**************************************					
5.		***************************************			5.	<u> </u>					
6.					6.						
÷ 7.		·		 	7.						
8.		······································		 	8.						
	ant Species that are	OBL. FACW	or FAC leveludi	no FAC-): 2		0/	L		L		
REMARKS:			· · · · · · · · · · · · · · · · · ·		15- 100	107					
HYDROLOGY											
Recorded Data?	Des	scribe: be	rmed	10/01/	- 00		01/1 -1				
Depth of Surface V		in. o		Other Notes	$\frac{AVICS-C}{C}$	issoc. 1	とから	o to	Chian d		
Depth to Free Wat		1000 (in. a)		-					0		
· · · · · · · · · · · · · · · · · · ·				1					1		
Depth to Saturated	Soil:	<u>(j</u> (jj. 0)	cm)								
Primary Wetland	Indicators:			Secondary	Wetland Indicators (2 or more required)	:		-		
	ındated				Oxidized Root Ch	annels in Upper 12	Inches (30 cm	ר)			
	turated in Upper 12	nches (30 cm)		✓ Water-Stained Le						
	ater Marks				Local Soil Survey	Data					
	ft Lines			}	FAC-Neutral Test						
	diment Deposits		·····		Other (Explain in	Remarks)					
<u> </u>	ainage Patterns in W Is or waters within d	etlands	a 0=1								
			35'	x 2001							
REMARKS:			·								
Soil Survey Man Ur	nit (Series and Phase										
Taxonomy (to Subg		···				Drainage Class:	.,				
	* *					Field Observation		-	······································		
Profile Description	"moderate	mole	of clan		reduction	USDA Land Res	ource Region:				
Depth Range (Inches or cm)	Horizon Desig.	Matrix Colo (Munsell M		Mottles (Abundance/	Contrast/Color)	Texture, Concret	ions, Structure	. Redox Con	can atc		
0-12"	AI	10 WR	1-11	54R 4	16 10 0/2 DYS	clauran		C			
				,			1 1 100	<u> ۲۱۱۱۳</u>	-/		
		<u> </u>									
	tosol				Concretions or Rec	dox Concentrations					
Hist	tic Epidedon				High Organic Cont	ent					
Sulf	idic Odor			_	Organic Streaking	in Sandy Solls					
Aqu	ic Moisture Regime				_ Listed on Local Hye			· · · · · · · · · · · · · · · · · · ·			
✓ Gle	yed or Low-Chroma	Colors			Other USDA Hydric		lain in Damed	(a)			
REMARKS:					_ s coor riyan	S CON INCIDATOR (EXP	nam in meman				
WET AND DE											
WETLAND DETER		Yes	N. T								
Hydrophytic Vegetal		7 4	No				(3		1		
Wetland Hydrology Hydric Soils Present		Yes	No	is This Samp	ling Point Within a V	Vetland?	(YES)	NO			
REMARKS:		Yes	No								
Normal Circumstance	es?		Significantly D	Disturbed: A	1.7	Potostist P-	blam 1 - 0				
	upe,			Disturbed:	V	Potential Pro	blem Area? y	70			

WETLAND DELINEATION FORM (1987 USACE METHOD)	SITE ID NO .: WHACL OZG
WETLAND sketch plan (include surrounding area and direction arrow) no	
4	(trib to Grand R.
N	
2	
	(E BY
	S/ PEM/
	$\langle v $
80.506.5	
& corps plat.	enter
(r) pand	d X ; to
	bEW.
V wetland	
E	

GENERAL COMMENTS (ie.weitland disturbed by landowner, excessive noxious weeds in wetland, weather conditions, landowner issues, etc):

i	LINEATION FOR	RM (1987	USACE ME	THOD)	Site ID No.: (A)	4A. C1. 03	2 7	Milepost:;	630.2	
Date: 4/25	106		GPS FILE:	RN425	09A				630.9	
Staff: 4A				Client/Project Name: Rockies Express Pipeline Project (REX-West) 04060-018-110						
Logbook Page No's	·· BOOK 2	09.51		Block/Lot/Tract No.: € 1-004 Photo No's.: ① € ② (a) €						
	trib to ar		Watershed:	Watershed: Grand R. Drainage Basin: Orand R.						
Loop/Facility:			State/County/		Charitan	Co., mo		,		
DOMINANT PLAN	T SPECIES (% Comm	<u> </u>	Stratum	Indicator		PLANT SPECIES (%	Coveri	Stratum	Indicates	
	s palusto	ic (10)		FACW	1. Solden	ajaantea	(2)	+	FACU	
	15 biroles	(10)	<u> </u>	FACIN+	2 action	<0pv (8)	. /	.4	=1700°	
3. Pancuy	111115 5	¿ P. (5)	F	BFACW)	3. Spilobias	n = p. (5))	HIF	> FAW	
4. COCOX			\mathcal{H}	OBL	4. Celtis	50 (5))	F	-FAC-	
5. ELeoch		ris (5)	++	OBL	5. Phlox	< to (5))	F/H	=FAL	
6. Azer so	accharinum	(lo)	F.	FACUS	6. Querais	macrocalo	(3)	F	FAZ	
7.			***************************************		7. Aschepio	- incatnatal	2)	1-1	OBL	
8.					8. Azer 1	enundo	(5)	F	FK W	
Per Cent of Domina	ant Species that are O	BL, FACW, o	or FAC (excludi	ng FAC-):	6/6 = 100	e Po				
REMARKS:										
HYDROLOGY										
Recorded Data?	Descr	ibe:								
Depth of Surface W	Vater:	(ii) or	cm)	Other Notes	boambrie	addlena this	1 12 on	,	· · · · · · · · · · · · · · · · · · ·	
Depth to Free Wate	er in Pit: 3 8	2. ' (in.)or	cm)	150mc	oindwaed g	seattered				
Depth to Saturated		(M) or		Pto WE	Hand - to	ar to pe	ys.A			
Primary Wetland I	ndicators:									
	ndated				Secondary Wetland Indicators (2 or more required):Oxidized Root Channels in Upper 12 Inches (30 cm)					
Sa	turated in Upper 12 Inc	ches (30 cm)		Water-Stained Leaves						
Wa	ater Marks			Ļocal Soil Survey Data						
Dri	ft Lines			FAC-Neutral Test						
Şe	diment Deposits			Other (Explain in Remarks)						
	ainage Patterns in We									
Estimate of wetland	ds or waters within dist	urbance area	* ^ 200) × 300	001				***************************************	
REMARKS:										
SOILS	t .				,	` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `		*		
L	nit (Series and Phase):					Drainage Class:		***************************************		
Taxonomy (to Subg	roup):					Field Observations	Confirm M	apped Type?		
Profile Description	>0/4/10 m	Durk (IXL, Fe	reductio	NS.	USDA Land Resou	rce Region	:		
Depth Range (Inches or cm)	Horizon Desig.	Matrix Colo (Munsell Mo	r pist)	Mottles (Abundance/	Contrast/Color)	Texture, Concretion	ns, Structur	e. Redox Co	ncen., etc.	
0-12	R	1048	3/2	300/FX	int/104R 5/2	Clay long	Λ.	A CCU100		
					7					
		····								
	<u> </u>									
	tosol		 			dox Concentrations				
	tic Epidedon			High Organic Content						
	fidic Odor uic Moisture Regime	~		-	Organic Streaking		<u> </u>			
} <u>-</u>		······································		 	Listed on Local Hy					
X Gle	yed or Low-Chroma C	OIOFS	·		Other USDA Hydri	c Soil Indicator (Expla	in in Rema	rks)		
								·····		
WETLAND DETER		6								
Hydrophytic Vegeta		Ves	No						[
Wetland Hydrology		Yes .	No	Is This Sam	pling Point Within a	Wetland?	(YES)	NO	1	
Hydric Soils Present REMARKS:	it?	(Yes	No							
Normal Circumstan	ces? YES		Significantly	Disturbed:	(0	Potential Probl	em Area?	NIO		

WETLAND DELINEATION FORM (1987 USACE METHOD)	SITE ID NO .: W. 4A. CI. 03	2
WETLAND sketch plan (include surrounding area and direction arrow) - n		. 8 colli
EUS 1351 PEM EUS PFO		DEW.

GENERAL COMMENTS (ie. wetland disturbed by landowner, excessive noxious weeds in wetland, weather conditions, landowner issues, etc):

WATERBODY DA	ATA - Page 1 of 1	Stream ID No.:		122	GPS File	9: 	MILEPOST:
Date: 4/25/0	06	Client/Project N Pipeline Project	lame: Rock	ies Express	Project	<u>2509A</u> #: 04060-018-1	1630.5
Staff:		State/County/N	lunicipality:		LOOP/F/	ACILITY NAME:	
Logbook page No's.:		Charitz Blocki	WI CO.	, MO	10	- tem	5
STREAM Sketch Plan line	ia. 51	ыюск/ Lot/Tract No.:	CI-C	104	Photo N	ES/VI	Upstr Dostr
STREAM Sketch Plan line	clyde surrounding area,	cardinal directi	on arrow, fl	ow direction a	irrow)	<u> </u>	
	Q=	PEM	trans	Cive In	5133 Ptm3	Franc Li	5 5133 5 5133
Waterbodyin	PEM (W032		MOD MOD	/ +-i	PFO	France is	- from
Stream Flow	Fast	Moderate		Slow		1/6	
	Perennial	Intermittent	<u> </u>	Ephemeral		Pooled Direction of I	None
Flow Depth (in.)	0 0-3	3-6	6-12	12-24	24-36		48-60 60+
Stream Width at Crossin	g (ft.) Top of Banks:	10'	Channel	OWHM: /	01	Water Sur	face: (/
Stream Substrate %	Bedrock %	Gravel	%	Sand o	%	Silt/Clay /O()	
Bank Height (ft.)	teft E 0-2	2-4		4-6		6-8	8+
(looking downstream)	Right (,) (0-2)	2-4		4-6		6-8	8+
Bank Slope (%) (looking downstream)	Ceft € 0-20	20-40		40-60		60-80	80+
		7 20-40		40-60 ∕		60-80	80+
Water Clarity	Clear	Slightly Turb	id (Turbid	······	Very Turbid	Color: red/brow
Aquatic Habitat Undercut Banks	Sand Bar NO	Gravel Bar		Mud Bar U	ejum	Gravel Riffles	· · · · · · · · · · · · · · · · · · ·
ndercut Banks	Overhanging trees/shrubs /\(\int\(\omega\)	In-stream em	ergent Ca—	In-stream sui plants //	omergent -0	Bank root systems	Fringing
Aquatic Organisms Observed	Waterfowl	Fish (adult)		Fish (juvenile)	Frogs	Turtles
T/E SPECIES / SUITABLE	Snakes	Invertebrates	21	Other:			1 . 0. 000
no THE ok	os i Suitabl	e habi	tat t	21 wo	odlan	dsp 1	ì
Same as	DESCRIPTION WO32 (PEV	M) Sp.					
Comments (e.g. pipeline o			eracion oc	tontial activity			
Channel cro	atedas actsu	H 06 P	atte Ci	ine - St	ng disturbar CEANO c	nces, meanders RSS 64, W/ (or width variations うりろこ
STREAM QUALITY (circle	e)	High		Medium		Low	
High Quality - no indicate diverse and stable fish & v	ion of stress or disturba	nce in stream o	r adiacant		and matur	Low e fringing shrub	-dominated cover -
<u>Medium Quality</u> — mild to provides fair fish and wildl and depth variation restric	moderate disturbances life habitat – some eros ted – some channelizar	result in minor sion potential – tion – trees, gr	recognizabl some habit ass, or forb	e alterations - tat diversity - s dominate ba	nimes and properties of the sediment of the se	pools - no cha pipeline, road, ra pent deposition on	nnelization - ailroad, other ROWs - predominate flow
<u>Low quality</u> - disturbance intense grazing activities - high erosion potential - fl vegetation	es cause significant char	nges affecting p	lant species	s – mechanic	al alteration	of plant specie	es and/or soils - at diversity lacking - dominate bank

vegetation 'age 1 of 1

WETLAND D	ELINEATION F	ORM (198	7 USACE ME	ETHOD)	Site ID No.: W.	UACIAMI	Milepost:	1/27	
	166				08A-	4A C1.021	milepost.	637,0	
Staff: 4A						oject (REX-West) 04060-018-1	10		
Logbook Page No	s. BOOK :	2 09.3	A Block/Lot/Tra		033	Photo No's.:	-		
Nearest Waterway	· Unnamoc		Watershed:			Drainage Basin:			
Loop/Facility:	_		State/County	/Municipality: (Charitan	<i>y</i>	,		
DOMINANT PLAN	IT SPECIES (% Co	var)	Stretum	Indianan			T	T .	
1. Tupha	anaust		s) H	Indicator OBC	1. Trifolium	PLANT SPECIES (% Cover)	Stratum	Indicator	
2. Colex	Sp. J (29		H	≥ FAC W			14	FACU	
3. Juneus	50 (10	5)	T H	= FACW	3. Lemna		· H	OBL	
4.	,	7			4.	Spr. (3)	And	OBC	
5.	•				5.			<u> </u>	
6.					6.			 	
7.					7.			 	
8.		*			8.				
Per Cent of Domin	ant Species that are	OBL, FACW,	or FAC (excludi	ng FAC-): ろん	13=100%				
REMARKS:	~								
HYDROLOGY									
Recorded Data?	De	scribe: D ov	id w/n	Other Notes:	ade bein	Λ			
Depth of Surface V	Vater: /	07 e (in. o	r cm)	Other Notes:	:				
Depth to Free Wat	er in Pit:	<u>/</u>	cm)	Sid	e PIARW	Grosp & further			
Depth to Saturated	l Soil:	(in) or	cm)		- 100	troop thate			
Primary Wetland	Indicators:						· · · · · · · · · · · · · · · · · · ·		
	4	on oit		Securitary	Wetland Indicators (···	
X Sa	turated in Upper 12)		✓ Water-Stained Lea	annels in Upper 12 Inches (30 c	<u>m)</u>		
Wa	ater Marks		·		Local Soil Survey				
Dri	ft Lines				X FAC-Neutral Test	Jala		· · · · · · · · · · · · · · · · · · ·	
1.4	diment Deposits				Other (Explain in F	Remarks)			
Estimate of wetland	ainage Patterns in V	Vetlands							
	os or waters within o	listurbance are	a 1601	x/20'					
REMARKS:			····						
Soil Survey Map Ur	oit (Codes and Dh	-\.				·			
Taxonomy (to Subg		e):				Drainage Class:			
Profile Description	<u></u>					Field Observations Confirm M			
Depth Range	- SMOLLOW -	dack p	ofle wh		aterial =10"	USDA Land Resource Region	·		
(Inches or cm)	Horizon Desig.	Matrix Cólo (Munseil M	oist)	Mottles (Abundance/C	Contrast/Color)	Texture, Concretions, Structure	e. Redox Con	can etc	
0-10"	A.	10 yr4	11	7,5425	ا ~. ا	• , , ,	Gro ara		
		ļ				J	J.	ODE, GI	
		 -							
Hiel	tosol	<u> </u>	· ·						
					Concretions or Red	ox Concentrations			
	tic Epidedon			=	_ High Organic Conte	nt			
	fidic Odor			Organic Streaking in Sandy Soils					
	ic Moisture Regime				_ Listed on Local Hyd	ric Soils List			
	yed or Low-Chroma	Colors			_ Other USDA Hydric	Soil Indicator (Explain in Rema	rks)		
REMARKS:									
WEILAND DETER	MINATION								
Hydrophytic Vegetat	-	(Yes)	No						
Wetland Hydrology	Present?	(Ps)	No	Is This Samul	ling Point Within a W	atland?	NO		
Hydric Soils Present	?	Yes	No		g - Siris Petitini d W	Cuanar (F2)	NO		
REMARKS:									
Normal Circumstance	ies? Weder		Significantly D	isturbed:	NO	Potential Problem Area?	10		

WETLAND DELINEATION FORM (1987 USACE METHOD)	SITE ID NO .: WYAZI 62!	
WETLAND sketch plan (include surrounding area and direction arrow) - no		
165 VV	Eos	TEDS Wotland PUB Side
		•

•	
*	

GENERAL COMMENTS (ie. wetland disturbed by landowner, excessive noxious weeds in wetland, weather conditions, landowner issues, etc):

WETLAND DELINEATION FORM (1987	USACE M	ETHOD)	Site ID No.: (A)	HA. C1. 020	Milepost::	1 20 00		
Date: 4/21/06	GPS FILE:	R0421	084	11. C. 1. () E. ()		639.05		
Staff: 4A		Client/Project Name: Rockies Express Pipeline Project (REX-West) 04060-018-110						
Logbook Page No's.: 300 × 200.35	Block/Lat/Tr		-036		35 € 8	. J. > F		
Nearest Waterway: Unnamed into 5	Watershed:			Drainage Basin:		176		
Loop/Facility:	State/Count	y/Municipality:	Chacita	n Co., MO				
DOMINANT PLANT SPECIES (% Cover)	Stratum	Indicatos		PLANT SPECIES (% Cover)		T		
1. Tupha latotalia (15)	H	OBC	1. Lemna	SP. (5)	Stratum	Indicator		
2 Phalais alundinacon	o) H	FACW	2.			08 L		
3. COLOX Sp. (30)	H	13 Frem	3.					
4.			4.			 		
5.			5.					
6.	· · · · · · · · · · · · · · · · · · ·		6.					
7.			7.					
8.			8.					
Per Cent of Dominant Species that are OBL, FACW,	or FAC (exclud	ling FAC-):	3%					
REMARKS:								
HYDROLOGY								
Recorded Data? Describe: \MP	Hand.	frings.	alound C	PUB waterbod lockbird frog	-			
Depth of Surface Water: (in. or	cm)	Other Notes:			<u> </u>			
Depth to Free Water in Pit: None (in. or	cm)	1 4500-	ninged t	work bird frog	o, woo	deank		
Depth to Saturated Soil:	cm)	ا مرية	possible.	de Safa	•	7g. All		
Primary Wetland Indicators:				(2 or more required):				
Inundated ~ 11 fram p	<u>; -</u>			nannels in Upper 12 Inches (30 c	\			
Saturated in Upper 12 Inches (30 cm)	7		× Water-Stained Le		(11)	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		
Water Marks			Local Soil Survey					
Drift Lines		2	FAC-Neutral Test					
Sediment Deposits			Other (Explain in					
Drainage Patterns in Wetlands Estimate of wetlands or waters within disturbance area								
Estimate of wellands of waters within disturbance area	180	' x 150'						
REMARKS:								
SOILS		····			***************************************			
Soil Survey Map Unit (Series and Phase):				Drainage Class:		·		
Taxonomy (to Subgroup):				Field Observations Confirm M	apped Type?			
Profile Description:				USDA Land Resource Region	1:			
Depth Range Horizon Desig. Matrix Color (Inches or cm) (Munsell Mo	r pist)	Mottles (Abundance/6	Contrast/Color)	Texture, Concretions, Structure	re Bedox Con	can etc		
0-13" AT 10 WRG	1/1		10010 pom	part silturian	lo a no	freliech		
<u> </u>		٠,٠			10017012	AVA PESCI		
Histosol			Concretions or Re	dox Concentrations				
Histic Epidedon			_ High Organic Cont	ent				
✓ Sulfidic Odor ———————————————————————————————————		_	Organic Streaking	in Sandy Soils				
Aquic Moisture Regime			_ Listed on Local Hy	dric Soils List				
				c Soil Indicator (Explain in Rema	rks)			
REMARKS:				The same (Capitalis III nellis	inaj			
MET AND DETERMINATION	······································							
WETLAND DETERMINATION Hydrophytic Vegetation Present? Yes	No.							
Wetland Hydrology Present? (Yes)	No					-		
Hydric Soils Present? Yes	No No	ls This Samp	ling Point Within a	Wetland? (YES)	NO			
REMARKS:	140	1						
Normal Circumstances? W. P. Band	Significantly	Disturbed: Ax		Potential Problem Area?	an			

WETLAND DELINEATION FORM (1987 USACE METHOD)	SITE ID NO.: W4A C1 020
WETLAND sketch plan (include surrounding area and direction arrow) – no	ot required if entered on other sheet Road Y Kood Y
₽	Pub wetter?
	1 11

GENERAL COMMENTS (ie.wetland disturbed by landowner, excessive noxious weeds in wetland, weather conditions, landowner issues, etc):

WETLAND DE	LINEATION FO	ORM (1987	USACE ME	THOD)	Site ID No.: A.)	, HA CLOIZ	Milepost::	7 115	
	1/06		GPS FILE:		508A	, 40 CLOIZ	mnepost:	640.	
Staff:			Client/Project			roject (REX-West) 04060-018-1	10		
Logbook Page No'	s.: BOOK :	20017	Block/Lot/Tra		-056	Photo No's.: (1)	= 1		
Nearest Waterway		XI OK!	Watershed:			Drainage Basin:	S W		
Loop/Facility:			Chala/One at 188 and 198				,		
DOMENANT DE AN	IT SPECIES (% Cov		·				1		
1. Typh	1 1 2	70	Stratum	Indicator OBC		PLANT SPECIES (% Cover)	Stratum	Indicator	
2. Catex		5%)	H ≥	FACW	1.		<u> </u>	-	
3. Potamos		(6 %) T	#=	UBL	3.				
4.	J			. 0,70	4.		*	<u> </u>	
5.					5.		 		
6.					6.			<u> </u>	
7.					7.			 	
8.					8.				
Per Cent of Domina	ant Species that are	OBL, FACW, or	r FAC (excludin	ig FAC-):	3/2 - 10	0%			
REMARKS: en	neraln+ a	zamont	SCVPE	- 14.1	11/3 Ct 1/0	- w/woodland			
HYDROLOGY.	- O	T	- 1 0		1000 512016	2 - 7 WOOCH AND	C1107	<u> </u>	
Recorded Data?	Des	cribe:	D/PSS10	NO 01	hillsid			· · · · · · · · · · · · · · · · · · ·	
Depth of Surface V	Vater: no	ne (in. or c	m)	Other Notes	: DITTIBACK	- Day	· · · · · · · · · · · · · · · · · · ·		
Depth to Free Water		<u>0''+</u> (m)or c							
Depth to Saturated									
Primary Wetland I		12 (iii) Of C	(11)					·····	
	indated $\sqrt{4/}$	from Di	1	Secondary Wetland Indicators (2 or more required):					
	turated in Upper 12 I			Oxidized Root Channels in Upper 12 Inches (30 cm) X Water-Stained Leaves					
	ater Marks	inches (SO CIT)							
	ft Lines			Local Soil Survey Data FAC-Neutral Test					
	diment Deposits			Other (Explain in Remarks)					
	ainage Patterns in W	etlands	**	Curier (Explain in Remarks)					
Estimate of wetland	is or waters within di	sturbance area							
REMARKS:				***************************************				· · · · · · · · · · · · · · · · · · ·	
SOILS			***************************************						
	it (Series and Phase)):				Drainage Class:	·		
Taxonomy (to Subg	roup):			2		Field Observations Confirm M	lapped Type?		
Profile Description	1:					USDA Land Resource Region			
Depth Range	Horizon Desig.	Matrix Color		Mottles	-				
1-1611	A-I	2,5 V 4		- (Abundance/G > この り。 の	Contrast/Color)	Texture, Concretions, Structure	e, Redox Con	cen., etc.	
, j. 70		0		30 10 1	SURFA	clay, med	- 61000	100	
					- 1. 31 ()			1	
Hist	tosol				Concretions or Re	dox Concentrations			
Hist	tic Epidedon				High Organic Cont				
Sulf	idic Odor	· · · · · · · · · · · · · · · · · · ·			_ Organic Streaking				
Aqu	ic Moisture Regime								
· ·	yed or Low-Chroma	Colors			_ Listed on Local Hy				
REMARKS:	,				_ Other USDA Hydri	Soil Indicator (Explain in Rema	rks)		
									
WETLAND DETER			·						
Hydrophytic Vegetat		Yes	No						
Wetland Hydrology		(es)	No	is This Samp	ling Point Within a V	Vetland? YES	NO		
Hydric Soils Present REMARKS:	77	(Yes)	No						
Normal Circumstance	:es? _{1 1 2 1 2}		Significantly D	isturhad:		Determine in			
	ile !			isturbed: /)	0	Potential Problem Area?	<u> </u>		

WETLAND sketch plan (include surrounding area and direction arrow) - not required if entered on other sheet	
P E + + + + tra MY 101 D PEN	ME. franch Manch Hanch Hanch

GENERAL COMMENTS (ie. wetland disturbed by landowner, excessive noxious weeds in wetland, weather conditions, landowner issues, etc):

* diverse board gop.

* one of the most-high quality wetlands sufar

* could shift have to the S by u isu' to

avoid Welland & UF

WETLAND DELINEATION FORM (198	7 USACE MI	ETHOD)	Site ID No.: \ 1	4A.CI.010	Milepost::	1 (1)	
Date: 4/17-106	GPS FILE:	ROLLI	700A	MICHOUNDIO	inicpost	646.5	
Staff:	Client/Project	Client/Project Name: Rockies Express Pipeline Project (REX-West) 04060-018-110					
Logbook Page No's.: Book 2001	/ I	Block/Lot/Tract No.: CI — O64 Photo No's: 0 E 2 S E G S O 4N					
Nearest Waterway: 606 (K.	Watershed: Long C/S Drainage Basin: / Co.c. (P					SW THY	
Loop/Facility:		/Municipality: (Chaciton	Drainage Basin: (10)	ic CF.		
DOMINANT PLANT SPECIES (% Cover)	Stratum	Indicator		PLANT SPECIES (% Cover)	Street		
1. Polygonum	1 11	OBC	1. Salivs	P.	Stratum:	Indicator	
2 COTTEX Sp.	1 4	OBL	2.		† · · · · · · · · · · · · · · · · · · ·	1271	
3. Phalaris arundinacoo	4 <i>H</i>	FACW	3.				
4.			4.				
5.			5.				
6.		<u> </u>	6.				
7.			7.				
8.			8.				
Per Cent of Dominant Species that are OBL, FACW			4) %			
REMARKS: emergent veg in	pondi	PEM_	fringe o	alona pond			
HADHOFOGA	1		0	0.1			
Recorded Data? — Describe: Do	nd ted	by dra	mage til	e to the N 400	vn ac	1.0/0	
Depth of Surface Water:	or cm)	Other Notes:	6		0	(
Depth to Free Water in Pit:	r cm)						
Depth to Saturated Soil:	r cm)						
Primary Wetland Indicators:		Secondary \	Wetland Indicators (2 or more required):			
Inundated \square 5' from	かっナ			annels in Upper 12 inches (30 c	m) 1 01	,	
X Saturated in Upper 12 Inches (30 cr	n):		X Water-Stained Le	aves	- De la	,	
Water Marks	li .		Local Soil Survey			~	
Drift Lines	ļ.		FAC-Neutral Test				
Sediment Deposits			Other (Explain in I	Remarks)			
Drainage Patterns in Wetlands Estimate of wetlands or waters within disturbance ar							
· · · · · · · · · · · · · · · · · · ·	<u>" 200 '</u>	X 250) !				
REMARKS:							
Soil Survey Map Unit (Series and Phase):				,			
Taxonomy (to Subgroup):				Drainage Class: ——			
				Field Observations Confirm M			
Profile Description:	1			USDA Land Resource Region	1:		
Depth Range Horizon Desig. Matrix Col (Inches or cm) Matrix Col (Munsell N		Mottles (Abundance/0	Contrast/Color)	Texture, Concretions, Structure	re. Redox Con	cen etc	
0-14"+ Ad 1104R		75UR	46 2%	distact day			
				,			
		N N					
Historia	·	7	7				
Histosol			Concretions or Rec				
Histic Epidedon			_ High Organic Cont	ent	_		
X Sulfidic Odor			Organic Streaking	in Sandy Soils			
Aquic Moisture Regime Listed on Local Hydric Soils List							
Gleyed or Low-Chroma Colors Other USDA Hydric Soil Indicator (Explain in Remarks)							
* REMARKS:		***					
WETLAND DETERMINATION	······································	·····					
Hydrophytic Vegetation Present? (Yes)	No	······································	<u> </u>				
Wetland Hydrology Present? (Yes)	No	is This Same	ling Boint Water	Vantage de			
Hydric Soils Present? Yes REMARKS:	No	io inis samp	ling Point Within a V	Vetland? YES	NO		
Normal Circumstances?	Significantly (Disturbed: //	5	Potential Problem Area?	VIO		

WETLAND DELINE	ATION FORM (1987 USACE METHOD)	SITE ID NO.: W. 4A. CI, OID
WETLAND sketch pla	an (include surrounding area and direction arrow) – no	t required if entered on other sheet
	C (roman	WW.
, ,	V	PEM everlevel we
	Herry	PEM exerter we Y PUB waterboding
	exit	only grand the PEM WILL
		hate PEM WILL

platte eige expossed

GENERAL COMMENTS (ie.wetland disturbed by landowner, excessive noxious weeds in wetland, weather conditions, landowner issues, etc):

ROUTINE WETLAND DETERMINATION FORM (1987 Site ID No.: GPS File: Milepost:	ı
WSC1 MOLL ON TO THE SCHOOL STORES	!
Date 07/13/06 WETLAND COORDINATES: 36 5000.22 N 90 50 51.47 W	
Staff/Team I.D.: SC1 Client/Project Name: Keystone Pipeline	}
(XI) T A I HOCK/ U/I root No.	
Noticest Waterway (Quarthal Crearly Watershop Co.	ÞW
Toop/Facility: AA	
DOMAIN DE LA COMPANIE	,
Indicator Indicator Indicator	ĺ
	j
3.	ĺ
4.	
5.	
6.	
7.	
8.	
Per Cent of Dominant Species that are OBL, FACW, or LAC (excluding FAC-)-H = 100 %	
REMARKS:	
HYDROLOGY	
Bronded Data?	
Death of Status Way	
- William Control	
Depth to Free Water in Pit: O (in. or cm)	
Depth to Saturated Soit 0 (in. or cm)	
Primary Wetland Indicators: Secondary Wetland Indicators (2 or more required):	
Oxidized Oxidized Root Changels in Harac 12 Indian (20)	
Water-Stained Leaves	
Water Marks Local Soil Survey Data	
Sediment DepositsOther (Explain in Remarks)	
Proinage Patterns in Wetlands REMARKS	
SOILS	
Soil Survey Map Unit (Series and Phase):	
Taxofromy (to Subscours):	
Profile Description:	
USDA Land Resource Region:	
(Inches or cm) (Mineral Majer)	
0-2 10 rr 4/2 10 rr 4/4 C+d Sid 61-16	
2-15 104R4/1 104R4/1 P+m Sich Spk	
0 YR3/4 P+m	
Flistosol Longretions or Redox Concentrations	
Histic Epidedon High Organic Content	
Sulfidic Odor Organic Streaking in Sandy Soils	
Listed on Local Hydric Soils List	
Other USDA Hydric Soil Indicator (Explain in Remarks)	
FIFMARKS (INCLUDE SOIL PIT COORDINATES):	
WET AND DETERMINATION	
Undershide Versia C. D.	
Wetland Liverplany Grossett	
Hydric Soils Present? (YES) No. 18 This Sampling Point Within a Wetland? (YES) NO.	
MARKS: Will be a common of the	
Normal Circumstances? Vac Significantly Disturbed (Atypical): A Colembial Problem Area?	

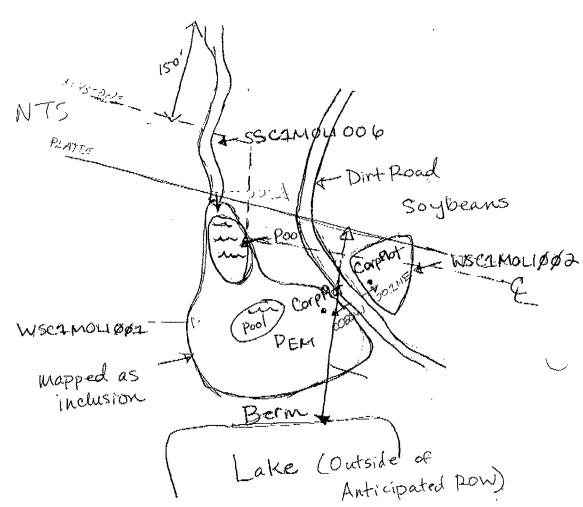
ROUTINE WETLAND DETERMINATION		Site ID No.:	GPS File:	Milepe	7 4 8
USACE METHOD)		NSCIMOLIGO:			~ ~~
Date: 07/13/06	WETLAND COORDINATES			0 00-1 /	V <u>V</u>
3taff/Team I.U.: 3C1	Client/Project Name: 1	eystone Pip	uline		
Logbnok Page No's.: 29+30	Block/Lot/fract No.: .		Photo (OCATIONS:		
Nearest Waterway: Campbell Creek	Watershed: Cuivre	priver	· · · · · · · · · · · · · · · · · · ·	<u>uiv</u> re	Kivet
Loop/Facility: Mounline	State/County/Municipality:	Missouri	Lincoln		
DOMINANT PLANT SPECIÉS	Stratum \ Indicator	NON-DOMINÂNT PLA	NT SPECIES	Stratum	Indicator
1. Leersia oryzoides	H (90%) OBL	1			
2 Rumex altissimus	H (10%) FACW)-2.			
	11 (1 - 1) - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	3.			
3		4.			
4		5.	-		
J		6.		 	
6.		† "			
7		8.			
8	== EAC (constituting EAC):	H = 100%	<u> </u>	٠,	
Per Cent of Dominant Species that are OBL, FACW.	or rac rexcluding rate-j.	<u> </u>			
REMARKS:					
HYDROLOGY		, , , , , , , , , , , , , , , , , , ,	<u> </u>	·	
	IWI Mapping				•
Depth of Surface Water: NONC (In. or	ст)				
Depth to Free Water in Pit: >15 (in. or	cm)				
Depth to Saturated Soil: > \$\((in. \) \(\)	· cm)				
Primary Wetland Indicators:	·	Wetland Indicators (2 of	r more required):		
Inundated			nels in Upper 12 Inches (3	30 cm)	
Saturated in Upper 12 Inches (30 cm		Water-Stained Leave			
* Water Marks		Local Soil Survey Da			
		FAC-Neutral Test			
Scdiment Deposits		Other (Explain in Rer	narks)		
REMARKS: Area is berned	up on dov	unstream side	through th	le press	nce of
		o drainea			fined chan
Soil Survey Map Unit (Series and Phase):	ia. WHAIN	CO CATALORES	Drainage Class:	· · ·	
Taxonomy (to Subgroup):		l l	Field Observations Confi	m Mapped Type	?
		1	USDA Land Resource Re		
Profile Description:					
Depth Range Horizon Desig. Matrix Co (Inches or crp) Monsell Munsell		e/Contrast/Color)	Texture, Concretions, Str		oncen., etc.
n_4 10 Y	P4/2			<u></u>	
4-12 1042	5/a 104R	4/6		7 <u>K-</u>	
12-15 10YR	-4/1 10 KK	3/6,104R3/	1 Sil S	bK	
		l			
Histosol		Le Concretions or Redo	x Concentrations		
Histic Epidedon		High Organic Conter	nt		
Sulfidic Odor		Organic Streaking in	Sandy Soits	,	
		Listed on Local Hydr	·····		
Aquic Moisture Regime		. *		Llenarke\	
Glayed or Low-Chroma Colors		Other USDA Hydric	Soil Indicator (Explain in		_
REMARKS (INCLUDE SOIL PIT COORDINATES):					
WETLAND DETERMINATION	4.	J	· 4	· #	*
Hydrophytic Vegetation Present? Yes	No				
Wetland Hydrology Present? Yes		mpling Point Within a W	etland? (Yi	s) no	
'Hydria So <u>ils Prese</u> nt? . Yas	No No			·	
AFMARKS: May not	be read	Datue Du	USACE Ilra	red on	no upstream Chample
Normal Circumstances?	Significantly Distributed (A	typical): No	Potential Problem	Aroa? N	٠ ١ ١ .

COMPLETE SKETCH OF WETLAND ON BACK OF THIS SHEET; INCLUDE SOIL PIT AND PHOTO LOCATIONS, NORTH ARROW, AND CHOSS-SECTION.

ENSR/AECOM

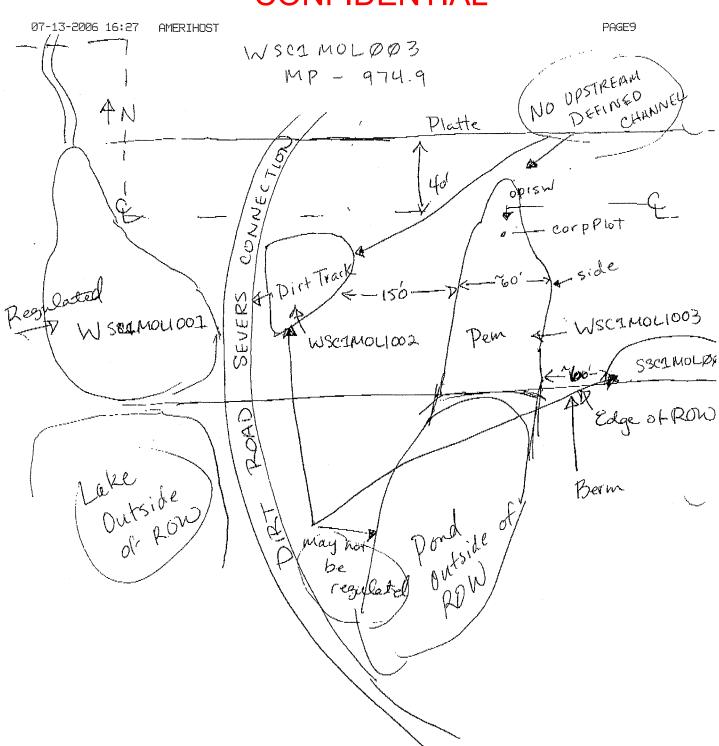
WSC1MOLIDØI & WSC1MOLØØ2 MP 974.8

1



ROUTINE WETLAND DETERMINATION FO USACE METHOD)		GPS File: Milepost: 97 3 .9 97 3 .9
Date: 07/13/01/2 WE	ETLAND COORDINATES: 38 55	58,84 N 90°50 46.71" 4
	ont/Project Name: Keystone P	
	ock/Lot/Tract No.:	Photo LOCATIONS: 0015W
h	etershed: Culve River	Drainage Basin: Cuivre Piver
	ate/County/Municipality: Missour	, , , , , ,
,		ri - Lincoln
DOMINANT PLANT SPECIES	ratum Indicator NON-DOMINANT P	PLANT SPECIES Stratum Indicator
1. Rumex altissionus H	(40%) FACKU 1.	
2 Learsia or yzoides H	(5%) OBL 2	
3 Amaranthus Inberculatus	#(30%) OBL 3.	
4.	4,	
5.	5.	
6.	6	
7	7.	
8	8.	
Per Cent of Dominant Species that are OBL, FACW, or FA	C (excluding FAC-): H = 100°	27
BEMARKS:		
HYDROLOGY		
	t 6A	
Describe: NW Desc	1 Mapping.	
Depth to Free Water in Pit: > (in. or cm)	1110 700 700 700 700 700 700 700 700 700	
Depth to Saturated Soil: 7 (5 (in. or cm)		
Primary Wetland Indicators:	Secondary Wetland Indicators (2	2 or more required):
Inundated	Oxidized Root Che	annels in Upper 12 Inches (30 cm)
Saturated in Upper 12 Inches (30 cm)	Water-Stained Lea	aves
Water Marks	1 ocal Soil Survey	Data
Dritt Lines	FAC-Neutral Test	
Sediment Deposits	Other (Explain in I	Remarks)
Drainage Patterns in Wetlands		
REMARKS Upstream side	of pund	
SOILS		entings of the settle set
Soil Survey Map Unit (Sedes and Phase):		Drainage Class:
Taxonomy (to Subgroup):		Field Observations Confirm Mapped Type?
Profile Description:	. 10 100	USDA Land Resource Region:
Depth Range Horizon Desig. Matrix Color	Mottles	
(Inches or cm) (Munsell Moist)	(Abundance/Contrast/Color)	Texture, Concretions, Structure, Redox Concern, etc.
0-15 10YR 4	/2 10 YR 3/0 C+d	516 , 5bk
Histosol	0	
		odox Concentrations
Histic Epidedon	High Organic Con	itont
, Sulfidic Odor	Organic Streaking	j in Sandy Soils
Aquic Moisture Regime	Listed on Local Hy	ydrie Sails List
Gleyed or Low-Chroma Colors	Other USDA Hydr	ric Soll Indicator (Explain in Remarks)
BUMARKS (INCLUDE SOIL PIT COORDINATES):	1	,

WETLAND DETERMINATION		Section 19
	No.	٠
Wetland Hydrology Present? Yes	. No Is This Sampling Point Within a	Wetland? YES NO
Jydric Soils Present? (Yes)	No l	-F
Normal Circumstances?	ignificantly Distribed (Atypical):	Colembial Problem Area? (\$7.7)
7.47		Potential Problem Area? NO

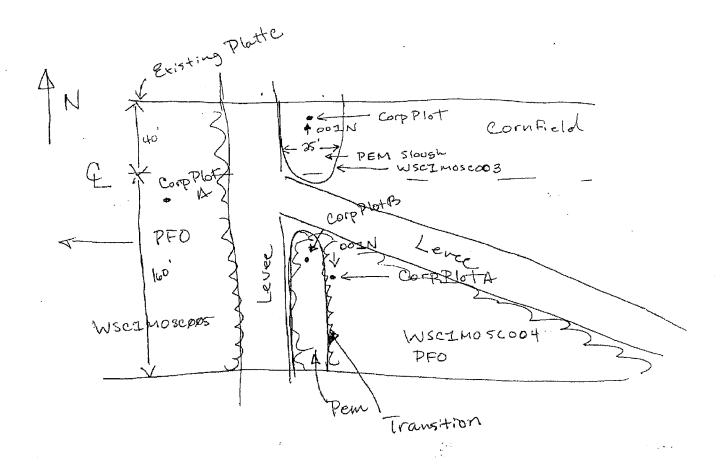


ROUTINE WETLAND DETERMINATION FOUSACE METHOD)	DRM (1987 Site ID No.: 00. W Scal Mose					
Date: 07/18/06 W	ETLAND COORDINATES: 38°53 33	11 N 90° 41'32.65" W				
	ient/Project Name: ReyStome P					
Logbook Page No's.: 40, 41 Bit	ock/Lot/Tract No.:	Photo LOCATIONS: DOTAL				
Nearest Waterway: Tish Slough W	atershed: Cuivre	Drainage Basin: Cuivre				
		Charles				
DEMIGRATIPEANT SEECES	CALLET SOME MAINTENANCE OF MAINTENAN					
1. Cassia fasiculata H	- (15%) FACU+1.					
2. Boltonia asteroides 1-	(5%) FACW 2					
3. Carex SDD. H	(5%) FACW 3.					
4. Tuncus tenuis #	(5%) FAC 4.					
5. Bidens frondosa H	(5%) FACW 5.					
6 Cephalanthus occidentalis	2. ** 17					
7. Salix nigra S	(10%) OBL 7.					
8.	1 - 1 - 1 - 1 - 1	0% S = 100%				
Per Cent of Dominant Species that are OBL, FACW, or FA	AC (excluding FAC-): H = 108 8	0% S = 100%				
REMARKS:						
Recorded Data? 45 Describe: NW Depth of Surface Water: 1001 (in. or cm)	1 Mapping					
Deptil to Flee Water III 14t.						
Depth to Saturated Soil: >(5 (in. or cm)						
Primary Wetland Indicators:	Secondary Wetland Indicators (2 o					
Inundated		Oxidized Root Channels in Upper 12 Inches (30 cm)				
Saturated in Upper 12 Inches (30 cm)	Water-Stained Leave	····				
Water Marks	Local Spil Survey Da	ıa				
Drift Lines Sediment Deposits	Other (Explain in Re	marke)				
Drainage Patterns in Wetlands	One (Explain in 1)	naina)				
REMARKS:						
Salt's: Soil Survey Map Unit (Series and Phase):		Drainage Class:				
Taxonormy (to Subgroup):		Field Observations Confirm Mapped Type?				
Profile Description:		USDA Land Resource Region:				
Depth-Range Horizon Desig. Matrix Color	Moltles					
(Inches or cm) (Munsell Moist)	/ Worldandor Contractor Contractor	Texture, Concretions, Structure, Redox Concen., etc.				
0-6 10 YP 4 6-15 10 YP 2	1/2 10 YR 4/6 C+d	sicl, sbk				
10.13	70					
Histosol	Concretions or Redo	x Concentrations				
Histic Epidedon	High Organic Conten	t				
Sulfidic Odar	Organic Streaking in	Sandy Soils				
Aquiç Moisture Regime	Listed on Local Hydri	Listed on Local Hydric Soils List				
Gleyed or Low-Chroma Colors	Other USDA Hydric S	Soil Indicator (Explain in Remarks)				
REMARKS (INCLUDE SOIL PIT COORDINATES):						
WETLAND DETERMINATION						
	No					
Wetland Hydrology Present? (Yes)	No Is This Sampling Point Within a W	etland? YES NO				
Hydric Soils Present? Yes AEMARKS:	No					
1	Ignificantly Disturbed (Atypical): No	Potential Problem Area? No				
177		<u>, i</u>				

COMPLETE SKETCH OF WETLAND ON BACK OF THIS SHEET; INCLUDE SOIL PIT AND PHOTO LOCATIONS, NORTH ARROW, AND CROSS-SECTION.

ENSR/AECOM

WSCIMOSCOOS, WSCIMOSCOO4, WSCIMOSCOOS



ROUTINE WETLAND DETERMINATION USACE METHOD)	I FORM (1987	ú	Site ID No.: ISC1MOSCOC	GPS File: 04-BRO7185C11	Milepost: 982.8	
Date: 7/18/06	WETLAND CO		<u> </u>		90° 41'33,59W	
Staff/Team I.D.: Sc_1	Client/Project Na	ame: Kev	Hone Pipelin	e		
Logbook Page No's.: 니니다	Block/Lot/Tract I	,		Photo LOCATION	15: 001N	
Nearest Waterway: Fish Joach	Watershed:	uivre		Drainage Basin: C	-vivre	
Loop/Facility: Mariline	State/County/Mu	unicipality: ,	MO Stich	whes		
DOMINANT PLANT SPECIES				PLANT SPECIES		
1. Sagifforia Latifolia	H (30%)	38L	1.		Mark Company of Company	
2. Leersta oryzoides		280	2.	······································		
3. Polygonum hydropiperoid	1540 0	3BL	3.			
4.	H		4.			
5.			5.			
6.			6.			
7.			7.			
8.			8.			
Per Cent of Dominant Species that are OBL, FACW,	or FAC (excluding	FAC-):	<u> </u>	00%		
REMARKS: HYPHOLOGY Recorded Data? Describe:						
Depth of Surface Water: (in. or	cm)	······································				
10						
Depth to Saturated Soil: (in. or					1	
Primary Wetland Indicators:		Secondary	Wetland Indicators (\$		
Inundated		Oxidized Root Channels in Upper 12 Inches (30 cm)				
Saturated in Upper 12 Inches (30 cm)		Water-Stained Le			
Water Marks			Local Soil Survey			
Drift Lines			FAC-Neutral Test			
Sediment Deposits			Other (Explain in	Hemarks)		
Drainage Patterns in Wetlands						
REMARKS:						
Soil Survey Map Unit (Series and Phase):				Drainage Class:		
Taxonomy (to Subgroup):				Field Observations Cor	nfirm Mapped Type?	
Profile Description:				USDA Land Resource		
Depth Range Horizon Desig. Matrix Coli	5r 1	Mottles		 		
(Inches or cm) (Munsell N	loist)	(Abundance	/Contrast/Color)	· · · · · · · · · · · · · · · · · · ·	Structure, Redox Concen., etc.	
0-4 104k		10 98	4/6 (20)	CL, SBR		
41-15 Gley 1	5/N ,	10 9/-	16 CAD	CL/SOR		
History			Concretions or Br	edox Concentrations		
Histosol						
Histic Epidedon		High Organic Content				
Sulfidic Odor		Organic Streaking in Sandy Soils				
Aquic Moisture Regime		Listed on Local Hydric Soils List				
Gleyed or Low-Chroma Colors			Other USDA Hyd	lric Soil Indicator (Explain i	n Remarks)	
REMARKS (INCLUDE SOIL PIT COORDINATES):						
	made desiry	in carrie				
Hydrophytic Vegetation Present? Yes	No	AL PERSON NAMED IN COLUMN 1		The state of the s	And the second section of the property of the second PEC 137 (1707). Section 2007 41 (1707) &	
Wetland Hydrology Present? (Yes)		Is This San	npling Point Within a	a Wetland?	YES) NO	
Hydric Soils Present? Yes	No	.s ma udi	Such and such such such such such such such such	A Tronaire !		
REMARKS: Will be Regulated						
Normal Circumstances? YES	Significantly Di	isturbed (Aty	pical): NO	Potential Problem	1 Area? NO	

COMPLETE SKETCH OF WETLAND ON BACK OF THIS SHEET; INCLUDE SOIL PIT AND PHOTO LOCATIONS, NORTH ARROW, AND CROSS-SECTION.

ENSR/AECOM

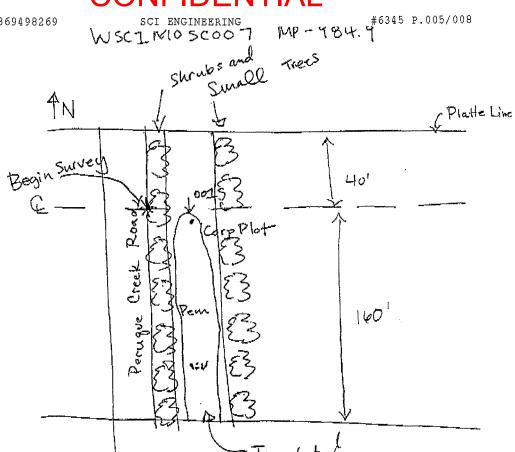
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SCI ENGINEERING

#6345 P.004/008

ROUTINE WETLAND DETERMINATION	I FORM (198	37	Site ID No.:	GPS File:	Milepo	
USACE METHOD)			WSCIMOSCO	of Rongsc		34.9
Date: 07/19/06	WETLAND C	OORDINATI	≋් 38° ⊊a′ ං	5.07 N		15.91" V
Staff/Team I.D.: SCI	Client/Project	Name:	Keystone	Pipeline		
Logbook Page No'a.: 50+5	Block/Lot/Trac		1-6-13.016	Photo LOCATIONS:	2024 5	
Nagrost Waterway 5 . Cl . 1 Day a	A CTECK	/1 · .	T) a a	Photo coomingno.		
Nearest Waterway: Fit Slough Perug	uckvateranau:	الانهني	- Rerugue	Drainage Basin:	Cuivre	
toop/Facility: Main Rine	State/County/	Municipality:	Mo - St	, Charles		
DOMINANT PLANT SPECIES	Stratum	Indicator	NON-DOMINANT PL	ANT SPECIES	Stratum	Indicator
1. Lecroin organides	1(20%)	OBL	1 Xonthiu	m strumarian		
2. Cophalanthus occidentatis	300%	OBL	2 Eupator	ium scrotinu	M H (c3%	
3. Salix nigra	8 (15 %)	086	3.	<u>, , , , , , , , , , , , , , , , , , , </u>		
a Phyla lanceolata	1 (15 %)	OBL	- 4.		†	
73.10	H 10 %	FACU	\			
	((" 70)	1-11-1-1				
6.	,		6.			
7			7.			
8	1.	1	8	,1 , 5		L
Por Cent of Dominant Species that are OBL, FACW,		ng FAC-):	2 = 100%	H = 100%	<u> </u>	
REMARKS: Most Dlants	<u>listed</u>	were	observed al	ong the edg	cofa	
HYDROLOGY boarily inch	tested o			<u>, </u>	1	
Recorded Data? No Describe:						
Depth of Surface Water: 4 (in. or		I .				
F)						
opporter to transfer to the co	cm)					
Depth to Saturated Soil:(in, or	em)	l				
Primary Wetland Indicators:		Seconda	ry Wetland Indicators (2	or more required):		. .
Inundated		Oxidized Root Channels in Upper 12 Inches (30 cm)				
Saturated in Upper 12 Inches (30 cm)	Water-Stained Leaves				
Water Marks	<u></u>		Local Soll Survey D			
Drift Lines			FAC-Neutral Test			
Sediment Deposits			Other (Explain in Re	marks)		
FEMARKS:						
SOILS						· · · · · · · · · · · · · · · · · · ·
Soil Survey Map Unit (Series and Phase):				Drainage Class:		
Taxonomy (to Subgroup):				Field Observations Confir	m Mannad Tuna?	
Profile Description:				USDA Land Resource Re	egion:	
Depth Range Horizon Desig. Matrix Cole (Inches or cm) (Munsell M		Mottles	ce/Contrasi/Color)	Texture, Concretions, Str.	ucture, Redox Co	ncen., etç.
D-10 10YR		10	Y24/1 04	sid, sbk		
6-15 10 4	24/	10412	t/m com	بالم الم		
	. 4Z4, .	ا کا تاکید ایم لیدا	R 2/1 + d	Kil. 4.2Dkm		
	,	U	24 - 10 T 100			
Histosol		 	Concretions or Red	v Canacatrations		
ast the second of the second o						
. Histia Epidedon	·		High Organic Conte	nt		
Sulfidic Odor			Organic Streaking in	Sandy Soils		
Agujc Moisture Regime			Listed on Local Hyd	ric Solls List		
Gleyed or Low-Chroma Colors			Other USDA Hydric Soil Indicator (Explain in Remarks)			
REMARKS (INCLUDE SOIL PIT COORDINATES):		1		and moreton (employed at a	is in inj	,
THE STATE OF SOIL FIT COMMINATES):	***************************************					
WETLAND DETERMINATION			A COMPANY OF THE PERSON OF THE			
Hydrophytic Vegetation Present? (ea.)	No	1				
Wotland Hydrology Present?	Nσ	is This S	ampling Point Within a V	otland? YE	S) NO	
Hydric Soils Present? Yes	N ₀					
_AEMARKS:						
Normal Olroumstances? Yes	Şignifiçentiy	Disturbed (A	htypical): No	Potential Problem A	rea? N	9

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Appendix C

Wetland Maps