



17

Carondelet Division

8600 Commercial Blvd. - Pevely, MO 63070 USA
Phone: 636-479-4499 - Fax: 636-479-3399

Final Inspection Report

Customer Name: ENERGY
INDUSTRIES OF
OHIO

Pattern: MCWF-A1 COIL

Order Number: PPPL-FP-LTS-2

ASTM Metal CF8MNMN MOD

Date 8/30/2005

Type Description	Cert Number	Procedure	Acceptance Criteria	Actual
Liquid Penetrant	169470-1	CQP - 300 Rev 9	SEE NOTE	Acceptable
Notes Acceptance per ASTM A903. Acceptance criteria - level 1 for high stressed areas, level 2 for all other areas.				
Mag Perm	169470-1	SOP Mag Perm 100 Rev 1	<1.02	Acceptable
Radiographic	169470-1	Technique # 12726	MSS SP 54	Acceptable
Visual	169470-1	CQP - 500 REV 4	ASTM A802 LEVEL 2	Acceptable

Liquid Penetrant
Visual

Technician: Kevin Anderson
ASNT Level II


Respectfully Submitted,
Charles A. Ruud
Quality Assurance Manager

TEAM COOPERHEAT-MQS, INC.

CERTIFIED RADIOGRAPHIC INSPECTION REPORT

FORM 6061-RT- 002 Rev.2

5512 W. State St. Milwaukee, WI 53208 Tel:(414)771-3060 Fax:(414)771-9481 (800)818-6403 www.cooperheat-mqs.com

CUSTOMER		DATE	WORK ORDER NO.
NAME METAL TEK INTERNATIONAL		06/16/2005	361-02341
ADDRESS 8600 COMMERCIAL BLVD		P.O. NUMBER	XRAY X
CITY PEVELY STATE MO ZIP 63070		Rick Suria	GAMMA
PROCEDURE SPECIFICATION ASTM E94-93	ACCEPTANCE CRITERIA MSS-SP-54-1999	SHEET 1 OF 5	

PART NUMBER	Serial No	View	No Apparent Indications		Dross		Incomplete Penetration		Shrinkage		Film Artifacts			REMARKS
			Accept- table	Reje- cted	Inclu- sion	or Por- osity	Lack of Fusion	Gas	Cracks	Hot Tear	Under cut	Sur- face		
MCWFA-1	1	1-2	✓											
		2-3			R			4					✓	
Z103990		3-4	✓			1		1						
HT# M169470		4-5			R			4						
CO40851		5-6	✓					2						
		6-7			R			4						
		7-8	✓					4						
		8-9	✓			2							✓	
		9-10	✓			2							✓	*
		10-11	✓											
		11-12	✓			2								
		12-13	✓									✓		
		13-14	✓									✓		
		15			R	2			4			✓		
		16-17	✓					1						
		17-18	✓					2						
		18-19	✓											
		19-20	✓											
		20-21	✓			1		1					✓	
		21-22	✓			1								
		22-23	✓									✓	✓	
		23-24	✓					2	2				✓	
		24-25			R					R				
		25-26	✓											
		26-27			R			4		R				

ACCEPTED	NO. REJECTED	MQS TECH. NO.	SHT.	REV.
0	1	12970		
COMMENTS		CUST. RSS NO.	SHT.	REV.
* Extra Film Shot For Pen Coverage.		REVIEWER		
		CERTIFIED NOT LEVEL (RT)		
		John Petroske RT II Exp. 01/08		

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ADDRESS 8600 COMMERCIAL BLVD		P.O. NUMBER	XRAY X
CITY PEVELY STATE MO ZIP 63070		Rick Suria	GAMMA
PROCEDURE SPECIFICATION ASTM E94-93	ACCEPTANCE CRITERIA MSS-SP-54-1999	SHEET 2 OF 5	

PART NUMBER	Serial No	View	No Apparent Indications		Dross		Incomplete Penetration		Shrinkage		Film Artifacts		REMARKS
			Accep- table	Reje- Incl- cted sion	or Por- Slag: osity	Lack of Fusion Gas	Cracks	Hot Tears	Under cut	Sur- face			
MCWFA-1	1	27-28			R				4				
		28-29			R				2	4	R		
Z103990		29-1			R				4				
T# M169470		30-31			R						R		
CO40851		31-32			R					4			
		32-33			R				5		R		
		33-34	✓										
		34-35	✓									✓	✓
		35-36			R						R		
		37-38			R						R		
		38-39	✓									✓	
		39-40	✓									✓	
		41-42			R						R		
		43-44	✓						1				
		44-45	✓										
		45-46	✓										
		46-47	✓										
		47-48	✓										
		48-49	✓										
		50-51			R	4							
		51-52			R	4							
		52-53			R	4					R		
		54-55	✓										
		55-56	✓										
ACCEPTED													

ACCEPTED COMMENTS	NO. REJECTED	MQS TECH. NO.	SHT.	REV.
0	1	12970		
		CUST. RSS NO.	SHT.	REV.
		REVIEWER		
		CERTIFIED NDT LEVEL (RT)		
		John Petroske RT II Exp. 01/08		

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NAME METAL TEK INTERNATIONAL		06/16/2005	361-02341
ADDRESS 8600 COMMERCIAL BLVD		P.O. NUMBER	XRAY X
CITY PEVELY STATE MO ZIP 63070		Rick Suria	GAMMA
PROCEDURE SPECIFICATION ASTM E94-93	ACCEPTANCE CRITERIA MSS-SP-54-1999	SHEET 3 OF 5	

PART NUMBER	Serial No	View	No Apparent Indications		Dross or Por- osity		Incomplete Penetration		Shrinkage		Film Artifacts			REMARKS
			Accep- table	Reje- cted	Inclu- sion	or Por- osity	Lack of Fusion	Gas Cracks	Hot Tear	Under cut	Sur- face			
MCWFA-1	1	57-58	✓											
	58-59	58-59	✓											
Z103990		59-60	✓							1				
HT# M169470		60-61	✓											
CO40851		61-62	✓			2							✓	
		62-63			R									
	63-64	63-64			R						R			
		64-65	✓					4		2				
		65-66			R			2						
		66-67			R			4						
		67-68	✓										✓	✓
		68-69			R			4		3-4				
		69-70			R					4				
		70-71	✓							2				
		71-72			R					4				
		72-73	✓											
		73-74	✓											
		74-75	✓											
		75-76	✓							1			✓	
		76-77			R								✓	✓
		77-78	✓							4				✓
		78-79	✓											
		79-80	✓											
		80-81	✓					1		3			✓	

ACCEPTED	NO. REJECTED	MQS TECH. NO.	SHT.	REV.
Φ	1	12970		
COMMENTS		CUST. RSS NO.	SHT.	REV.
		REVIEWER		
		CERTIFIED NDT LEVEL (RT)		
		John Petroske RT II Exp. 01/08		

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CUSTOMER		DATE	WORK ORDER NO.
NAME METAL TEK INTERNATIONAL		06/16/2005	361-02341
ADDRESS 8600 COMMERCIAL BLVD		P.O. NUMBER	XRAY X
CITY PEVELY STATE MO ZIP 63070		Rick Suria	GAMMA
PROCEDURE SPECIFICATION ASTM E94-93		ACCEPTANCE CRITERIA MSS-SP-54-1999	SHEET 4 OF 5

PART NUMBER	Serial No	View	No Apparent Indications		Dross		Incomplete Penetration		Shrinkage		Firm Artifacts			REMARKS
			Accep- table	Reje- cted	Inclu- sion	or Slag	Por- osity	Lack of Fusion	Gas	Cracks	Hot Tears	Under cut	Sur- face	
MCWFA-1	1	81-82	✓							2				
		82-83	✓											
Z103990		84-85	✓										✓	
HT# M169470		85-86	✓										✓	
CO40851		86-87	✓							2				
		87-88	✓							1				
		88-89	✓					1				✓		
		89-90	✓					1				✓		
		90-91	✓									✓		
		92-93			R					5				
		94-95			R				5	4				
		95-96			R				5	4				
		96-97			R				5	4				
		97-98			R					4				
		98-99			R					4				
		99-100	✓							2				
		100-101	✓							2				
		102-103	✓							2		✓		
		103-104	✓							2				
		104-105			R					4				
		106-107	✓											
		107-108	✓									✓		
		108-109			R					5				
		109-110	✓							2				
		111-112	✓											

ACCEPTED MENTS	NO. REJECTED	1	MQS TECH. NO.	12970	SHT.	REV.
			CUST. RSS NO.		SHT.	REV.
			REVIEWER	John Petroske		

CERTIFIED NDT LEVEL (RT)
John Petroske RT II Exp. 01/08

TEAM COOPERHEAT-MQS, INC.

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CUSTOMER		DATE	WORK ORDER NO.
NAME METAL TEK INTERNATIONAL		06/16/2005	361-02341
ADDRESS 8600 COMMERCIAL BLVD		P.O. NUMBER	XRAY X
CITY PEVELY STATE MO ZIP 63070		Rick Suria	GAMMA
PROCEDURE SPECIFICATION ASTM E94-93	ACCEPTANCE CRITERIA MSS-SP-54-1999	SHEET 5 OF 5	

PART NUMBER	Serial No	View	No Apparent Indications		Dross		Incomplete Penetration		Shrinkage		Film Artifacts			REMARKS
			Accep- table	Reje- cted	Inclu- sion	or Slag	Por- osity	Lack of Fusion	Gas	Cracks	Hot Tears	Under cut	Sur- face	
MCWFA-1	112-113	✓								2				
	113-114			R	5					4				
Z103990	115-116	✓							2					
HT# M169470	116-117			R					4					
CO40851	118-119	✓												
	119-120	✓										✓		
	121-122	✓												
	122-123	✓											✓	
	123-124			R					4					
	124-125			R					4					
	125-126			R							R			
	126-127	✓							1					
	127-128	✓							1					
	128-129	✓							1					
	130-131	✓										✓		
	131-132	✓							1					
	V 133			R						4				
	N 134	✓								1				
			</											

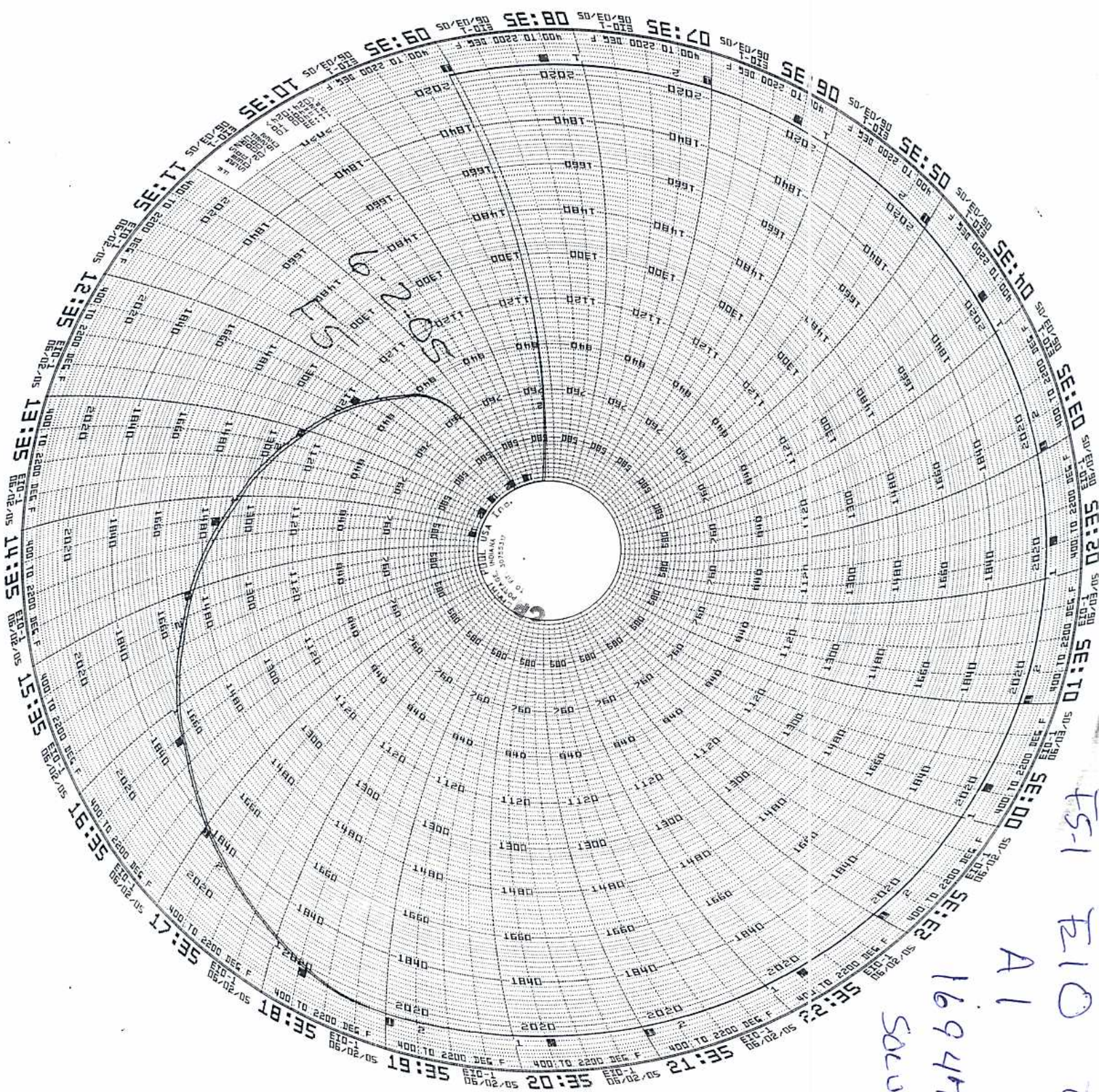
ACCEPTED	NO. REJECTED /	MQS TECH. NO. 12970	SHT.	REV.
COMMENTS		CUST. RSS NO.	SHT.	REV.
		REVIEWER <i>John Petroske</i>		
		CERTIFIED NDT LEVEL (RT)		
		John Petroske RT II Exp. 01/08		

MetalTek

INTERNATIONAL

RADIOGRAPHIC INTERPRETATION REPORT

CUSTOMER Energy Industries of Ohio		PURCHASE ORDER NUMBER PPPI - FP - LTS-2		DATE 8-21-05		CONTROL NO. 40851		PAGE 1 of 1			
PART NO. MCWFA-1		SPECIFICATION E446/E186		CLASS See Spec		TOTAL PIECES 1		PIECES ACCEPTED 1			
RADIOGRAPHED BY: Middlet/Kelley		INTERPRETED BY: Kelley		ASNT LEVEL II							
FILM TYPE 29/59/80	MATERIAL CF8M NM/Modi		ISOTOPE IRIDIUM 192 / COBALT 60				CODE ASTM E94 / ASME MIL-STD-453				
	V I E W	P E N E	A C C E P T	R E J E C T	S H R I N K	I N C L U S I O N	P O R O S I T Y	L I N E A R	S U R F A C E	L O F / L O P	COMMENTS
R2	35-36	/					2				
↓	68-69	30	X	X			3				
↓	69-70	30 50 60	X	X						X	
↓	104-105	50	/		3	1			/		
↓	113-114	↓		X						X	
↓	124-125	30/40	/		2		2		/		
↓	125-126	↓		X			4			X	
R-3	68-69	30		X						X	
↓	69-70	30 50 60		X						X	
↓	125-126	30/40		X						X	
↓	113-114	50		X						X	
R4	68-69	30		X			4			X	
↓	69-70	30 50 60	/			1	2		/		
↓	125-126	30/40		X			4			X	
↓	113-114	50		X			4			X	
R5	68-69	30	/		2	1	2		/		Lead Crimps
↓	113-114	50	/			1	3		/		
↓	125-126	30/40		X			3			X	
R6	125-126	↓	/				2				Film Scratches / Lead Crimp



Handwritten text: "169470-1" and "Solution"

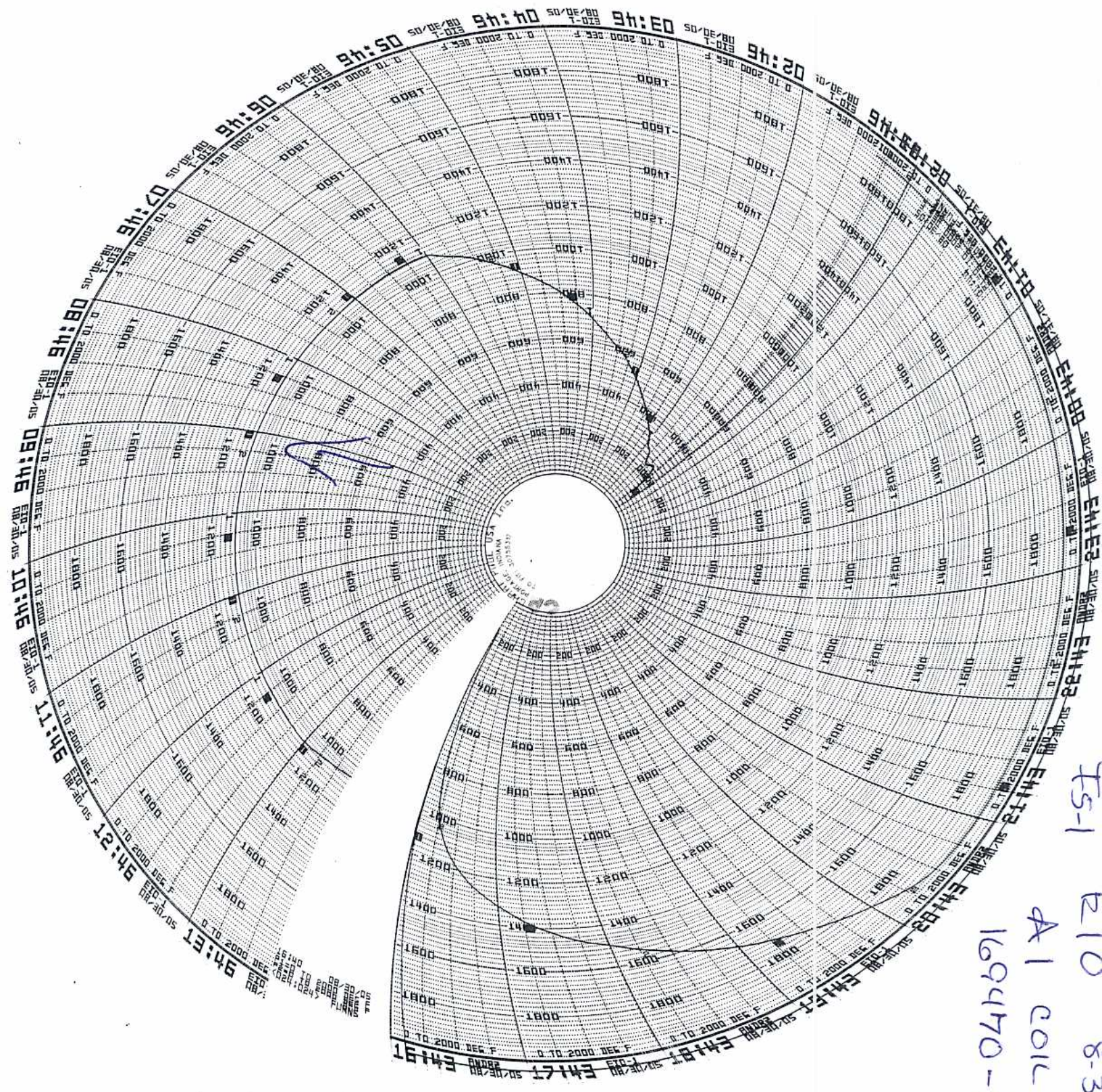
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Handwritten text: "Solution"

19A



TS-1

E10

8-30-05

A1 COLC

169470-1