Haddon/lield Road, Suite 316 Cherry Hill, New Jersey 08002

7 August 1996

Michael DiPietro
Division of Hazardous Waste Remediation
New York State Department of Environmental Conservation
50 Wolf Road
Albany, New York 12233-7010

Subject:

Reynolds Metals Can Plant Site Remediation

Recovery Well Development Proposal

Project #10977-02

Dear Mr. DiPietro:

During well development of selected recovery wells installed at the subject site, poor groundwater yields were observed. Based upon the observed poor yields, EARTH TECH is proposing to conduct additional well development techniques to attempt to increase groundwater production in these wells. The recovery wells requiring additional development are RW-1, RW-3, RW-6, RW-7, RW-9, RW-10, RW-11 and RW-13.

EARTH TECH proposes using a local subcontractor, Best Well Drilling, who is knowledgeable of similar well development problems in the site aquifer. The method proposed involves jetting the wells by using pressurized potable water in an attempt to dislodge silt and fine sand trapped in the sand pack during well installation.

EARTH TECH is proposing this additional development method to ensure that the lack of groundwater yield is not due to well construction but a characteristic of the aquifer.

We have included as an attachment the recovery well construction logs for your review. Please contact us as soon as possible with any comments concerning the proposed well development activities.

Telephone

3
609.482.5553

Facsimile

609.482.6514

Mike DiPietro Page 2 7 August 1996

If you have any questions concerning this submittal or this project feel free to contact us at 609-482-5553.

Very truly yours,

EARTH TECH, Inc.

David J. Russell, P.E.

Project Manager

William F. Schmidt, EIT

Project Engineer

Attachment

cc:

K. Kinton

Director, Bureau of Environmental Exposure Investigation

Regional Director, Region 7 Rosalie K. Rusinko, Esq.

F: |wpdocs| dave |miller| well pro.cor

PROJECTINO.	97702	CLIENT Miller	Brewing		isteria de la compositiva della compositiva dell	WELL NO.	<b>RW</b> -1
SITE LOCATION  North of Existing Stripper Building				ELEV	ATION AND E		
DRILLING CONTRACTOR			DRILLER		LOGG	ED BY	
	B & B D	rilling	I	R. Gryzinski		D. Liber	ison
DRILLING RIG TYPE		DRILLING	METHOD	DATE STARTE	Ď	DATE CC	MPLETED
Mol	bile B-61	Water F	Rotary	7/1/96		7/2	2/96
WELL PERMIT NUMBER		DIAMETER (	OF BORING 4"	FLUSH N UNCONS	OUNT (	COMPLETION ED FORMAT	V ÍN TON
LEG	END						
UNSLOTTED		GROUT					
PVC		SEAL			Γ΄.	,	
SLOTTED PVC		FILTER PACK					
QUANTITY	MATERIALS	SUSED					
15' 55'	SCREEN RISER				≋—	₩.[	16'
<u>i</u>	CAPS LOCK						
<u>12</u> 2	SAND SEAL						48'
	PORTLAND			53'		<b>—</b> —[	50°
	BENTONITE POWDER			<u>                                    </u>			
0	CEMENT MIX						
·0 0	FLUSH MOUN DRUMS-CUTT	•					
	DRUMS-WATE	ER					
DEVELOPI	MENT INFOF	RMATON					
STATIC WATER LEVEL BEF	FORE DEVELO	OPMENT WAS	16.75				
DEVELOPED WELL FOR	6 HOURS	BY pump, surge	& block				
AFTER 6 HOURS OF DEVELOPMENT, YIELD WAS 1 GPM.			68'			<u> </u>	
DRAWDOWN =				<u> </u>			68'
SPECIFIC CAPACITY = GPM/FOOT OF DRAWDOWN.							

PROJECT NO. 1097702	CLIENT Miller	Brewing			WELL NO.	RW-2
SITE LOCATION			ELEVATION AND DAT		ATUM	
East of Existing	Stripper Buil	ding	<u>.                                  </u>		Grade	<del>;</del>
DRILLING CONTRACTOR		DRILLER		LOGG	ED BY	
В&ВД	rilling	R	R. Gryzinski		B. Schm	idt
DRILLING RIG TYPE	DRILLING	METHOD	DATE STARTE	Ð	DATE CO	MPLETED
Mobile B-61	Water I	Rotary	6/20/96		6/24/	/96
WELL PERMIT NUMBER	DIAMETER	OF BORING	FLUSH M	10UNT (	COMPLETION	i in
	1	4"	UNCONS	OLIDAT	red formati	ION
LEGEND						
	GROUT			·		
UNSLOTTED SEED					7	
	SEAL			<b></b>		
SLOTTED PVC	FILTER PACK					
				░		
QUANTITY MATERIAL	S USED				<b>_</b>	
				鬻−	<del>-                                      </del>	16'
CAPS						
0LÓCK 10SAND						74'
SEAL						76'
20 PORTLAND 2 BENTONITE	<u>:</u>		79'		╡	
O DRUMS-WA	TER					
DEVELOPMENT INFO	RMATON	· ·				
STATIC WATER LEVEL BEFORE DEVE	LOPMENT WAS	16.51				
DEVELOPED WELL FOR 4 HOUR	RS BY <u>pump, surg</u>	e & block				
AFTER 4 HOURS OF DEVELOPMENT, YIELD WAS 10 GPM.			89'			89'
DRAWDOWN =					- [	
SPECIFIC CAPACITY = GPI	M/FOOT OF DRAW	VDOWN.				

<u>-N</u>, -E

- ENCOUNTERED - STABILIZED

ST.

PROJECT NO. 1097702	CLIENT Mille	r Brewing		en e	WELL NO.	RW-3
SITE LOCATION	NT			EĽEV	ATION AND D	·
Adjacent to	North Gate				Grade	;
DRILLING CONTRACTOR		DRILLER		LOGG	ED BY	
B &	B Drilling	R	R. Gryzinski		B. Schm	idt
DRILLING RIG TYPE	DRILLING	METHOD	DATE STARTE	.D	DATE CO	MPLETED
Mobile B	-61 Water I	Rotary	6/18/96		6/19	/96
WELL PERMIT NUMBER	DIAMETER	OF BORING	FLUSH	IOUNT (	COMPLETION	N IN
	1	4 <sup>#</sup>	UNCONS	SOLIDAT	ED FORMAT	ION .
LEGEND						
	<b>GROUT</b>					
UNSLOTTED, SA	×××				<b>-</b>	
	SEAL			≋ .		
SLOTTED PVC	FILTER PACK			░		
						i
	RIALS USED					:
				▓	<b>₩</b> .v	16'
I CAPS 0 LOCK					' <b>         </b>	10
SAND						32'
	AND					34'
BENTO			37'			
	ER NT MIX	!				
FLUSH	MOUNT					
<b>.</b>	S-CUTTINGS S-WATER					
DEVELOPMENT						
STATIC WATER LEVEL BEFORE D		16.40				
DEVELOPED WELL FOR 8			521			
AFTER <u>8</u> HOURS OF DEVEL	OPMENT, YIELD WAS	<u> </u> _GPM,	52'			52'
DRAWDOWN =						
SPECIFIC CAPACITY = :						

EN. - ENCOUNTERED ST. - STABILIZED

PROJECT NO. 1097702	CLIENT Mille	r Brewing		en et seudificial contr	WELL NO.	RW-4.
SITE LOCATION  Northeast of R		ELEV	ATION AND I			
DRILLING CONTRACTOR		DRILLER		LOGG	ED BY	
B & B 1	Orilling	1	R. Gryzinski		B. Schm	nidt
DRILLING RIG TYPE	DRILLING	METHOD	DATE STARTE	D.	DATE CO	MPLETED
Mobile B-61	Water I	Rotary	6/19/96		6/20	/96
WELL PERMIT NUMBER		of boring 4"			COMPLETION CED FORMAT	
LEGEND	· · · · · · · · · · · · · · · · · · ·			•	,	
UNSLOTTED PVC	GROUT			·		
	SEAL					
SLOTTED PVC	FILTER PACK					
QUANTITY         MATERIA          15'	) ≣		39'		<b>V</b>	34'
0 DRUMS-CU 0 DRUMS-WA	TTINGS					
DEVELOPMENT INFO	DRMATON					
STATIC WATER LEVEL BEFORE DEVE	LOPMENT WAS	15.78				
DEVELOPED WELL FOR 8 HOU	RS BY pump, surge	& block				
AFTER 8 HOURS OF DEVELOPM	IENT, YIELD WAS_	<u>4.5_</u> GРМ.	54'			E 21
DRAWDOWN =						54'
SPECIFIC CAPACITY = GPI	M/FOOT OF DRAW	DOWN.				

EN. ST.

PROJECT NO: 1097702	CLIENT Miller	Brewing	१९५८ में मुख्ये संश्चानी स्थापन के प्रेस्तान के प्रस्ति के प्रस्ति के प्रस्ति के प्रस्ति हैं हैं हैं हैं हैं	and a second second	WELL NO.
SITE LOCATION				ELEV	ATION AND DATUM
Adjacent to North	nwest Corner	r of Buildir	ing Grade		
DRILLING CONTRACTOR		DRILLER		LOGG	ED BY
B & B Dr	illing	F	R. Gryzinski	<u> </u>	B. Schmidt
DRILLING RIG TYPE	DRILLING I	METHOD	DATE STARTE	D	DATE COMPLETED
Mobile B-61	Water F	Rotary	7/9/96		7/9/96
WELL PERMIT NUMBER	DIAMETER 0	OF BORING 4"	FLUSH MOUNT COMPLETION IN UNCONSOLIDATED FORMATION		
LEGEND					
UNSLOTTED PVC	GROUT				
PVC	SEÁL				]
SLOTTED PVC	FILTER PACK				
QUANTITY MATERIALS	USED				
				്∰—	▼ 19'
L CAPS					
		į			41'
SEAL		·			
<u>13</u>			46'		43'
POWDER					
0 CEMENT MIX0 FLUSH MOUN	<del>T</del>				
0 DRUMS-CUTT					
n DRUMS-WATE	:R 				
DEVELOPMENT INFOR	MATON				
STATIC WATER LEVEL BEFORE DEVELO	PMENT WAS	19.34			
DEVELOPED WELL FOR 8 HOURS	BY pump, surge	& block			
AFTER 8 HOURS OF DEVELOPMENT, YIELD WAS 5 GPM.			61'		61'
DRAWDOWN =					
SPECIFIC CAPACITY = GPM/I	FOOT OF DRAW	DOWN.			

- ENCOUNTERED - STABILIZED EN. ST.

PROJECT NO. 1097702	CLIENT Miller	r Brewing	Ten rough fall take taken terminen den kannen er kant ten rough fall taken ten sen den taken ten sen den taken	dan e Kemendia sebili	WELL NO.	RW-6
SITE LOCATION				ELEV	ATION AND	DATUM
Inside Reynolds l	Building				Floor G	rade
DRILLING CONTRACTOR		DRILLER		LOGG	ED BY	
Parratt Wo	olfe	J	oe Percy		B. Schn	nidt
DRILLING RIG TYPE	DRILLING I	METHOD	DATE STARTE	D	DATE CO	OMPLETED
Ingersol Rand	HS	A	7/10/96		7/10	0/96
WELL PERMIT NUMBER	DIAMETER	OF BORING	FLUSH M	OUNT (	COMPLETIO	N IŅ.
	1.	4"	UNCONS	OLIDAT	TED FORMAT	LION
LEGEND						
UNSLOTTED	GROUT					
PVC	O T Ki			Γ	ן ר	1
	SEAL					
SLOTTED PVC	FILTER PACK					
<u> </u>						
QUANTITY MÂTERIALS	USED					
RISER						
CAPS LOCK			ĺ	<b>8</b>		
						5'
SEAL						
3: PORTLAND5			10'			7.
					3	
OCEMENT MIX						
					<b>TOTAL</b>	18'
DRUMS-WATE	•					
DEVELOPMENT INFOR	RMATON					
STATIC WATER LEVEL BEFORE DEVELO	18.75					
DEVELOPED WELL FOR 4 HOURS BY pump, surge & block						
AFTER 4 HOURS OF DEVELOPMENT, YIELD WAS 1.5 GPM.			35'			· · · · · · · · · · · · · · · · · · ·
DRAWDOWN =			ESS.	Hesseu	(1888)	40'
SPECIFIC CAPACITY = GPM/	FOOT OF DRAW	роми.				

53 HADDONFIELD ROAD, SUITE 316, CHERRY HILL, NEW JERSY 08002 WELL NO. PROJECT NO. CLIENT Miller Brewing 1097702 RW-7 SITE LOCATION **ELEVATION AND DATUM** Inside Reynolds Building Floor Grade DRILLING CONTRACTOR DRILLER LOGGED BY Parratt Wolfe Joe Percy B. Schmidt **DRILLING METHOD** DATE COMPLETED DRILLING RIG TYPE DATE STARTED **Ingersol Rand** HSA 7/11/96 7/11/96 DIAMETER OF BORING WELL PERMIT NUMBER FLUSH MOUNT COMPLETION IN UNCONSOLIDATED FORMATION 14" LEGEND GROUT UNSLOTTED PVC SEAL SLOTTED PVC FILTER PACK QUANTITY MATERIALS USED 251 SCREEN 101 RISER CAPS 0 LOCK 51 8 morie-0, 22 morie-1 SAND SEAL 7' **PORTLAND** 10' BENTONITE **POWDER** CEMENT MIX FLUSH MOUNT Û. 18 DRUMS-CUTTINGS 0 **DRUMS-WATER DEVELOPMENT INFORMATON** STATIC WATER LEVEL BEFORE DEVELOPMENT WAS 18.63 ... DEVELOPED WELL FOR 4 HOURS BY pump, surge & block 3**5**' AFTER 4 HOURS OF DEVELOPMENT, YIELD WAS 1.5 GPM. 40' DRAWDOWN = \_\_\_\_\_\_ SPECIFIC CAPACITY = \_\_\_\_\_ GPM/FOOT OF DRAWDOWN.

N. - ENCOUNTERED ST. - STABILIZED

PROJECT NO.	097702	CLIENT Miller	Brewing			WELL NO. RW-8
SITE LOCATION  Southwest of Reynolds Building				ELEV	ATION AND DATUM	
South	west of Rey	ynoids Build	uig_			Grade
DRILLING CONTRACTOR			DRILLER		LOGG	ED BY
	B & B Dr	rilling	F	R. Gryzinski		B. Schmidt
DRILLING RIG TYPE		DRILLING I	METHOD	DATE STARTE	D	DATE COMPLETED
Mo	bile B-61	Water F	Rotary	6/25/96		6/25/96
WELL PERMIT NUMBER	•	DIAMETER (	OF BORING	FLUSH M	TOUNT O	COMPLETION IN
		1.4	4"	UNCONS	OLIDAT	ED FORMATION
LE(	GËND		·			
		GROUT			<del></del>	
UNSCOTTED PVC	h'Acara	~=				7
		SEAL			<b> </b>	
SLOTTED PVC		FILTER PACK				
			· · · · -· <del></del>		▓	
QUANTITY	MATERIALS	SUSED				<b>***</b>
15' 45'	SCREEN RISER				≋-	14'
	CAPS				<b></b>	
0	LOCK SAND					37'
2	SEAL					
<u>13</u>	PORTLAND BENTOÑITE			42'		<u>39'</u>
	POWDER					
<u></u>	CEMENT MIX					
. <u> </u>	FLUSH MOUN					
<u>0</u>	DRUMS-WAT					
	PMENT INFOR	RMATON				
STATIC WATER LEVEL B	·		13.8			
DEVELOPED WELL FOR 5 HOURS BY pump, surge & block  AFTER 5 HOURS OF DEVELOPMENT, YIELD WAS 10 GPM.			57'		<b>.</b>	
DRAWDOWN =	_ <del>.</del>					57'
SPECIFIC CAPACITY = _	GРМ	/FOOT OF DRAW	DOWN.			
				I		

EN. ST.

PROJECT NO: 1097702	CLIENT Mille	r Brewing	e transfer en electricologico de la completa per el especial de la completa de la completa de la completa de l		WELL NO. RW-9
SITE LOCATION  North of RW-8				ELEV	ATION AND DATUM  Grade
DRILLING CONTRACTOR		DRILLER		LOGG	ED BY
B & B I		L	R. Gryzinski		B. Schmidt
DRILLING RIG TYPE	DRILLING		DATE STARTE	D:	DATE COMPLETED
Mobile B-61		<u> </u>	6/26/96		6/26/96
WELL PERMIT NUMBER	DIAMETER 1	OF BORING 4"	FLUSH MOUNT COMPLETION IN UNCONSOLIDATED FORMATION		
LEGEND	. днойт				
UNSLOTTED PVC	SEAL				
SLOTTED PVC	FILTER PACK				
QUANTITY MATERIA	DRMATON LOPMENT WAS RS BY DUMP, SUITE	e & block	42'		▼ 15'  — 37' — 39'
AFTER <u>14</u> HOURS OF DEVELOPN  DRAWDOWN =	MEŅT, YIELD WAS_	<u>l</u> GPM.	57'		57'
SPECIFIC GAPACITY = GP	M/FOOT OF DRAW	ĐOWN.			

EN. - ENCOUNTERED ST. - STABILIZED

PROJECT NO. 1097702	CLIENT Miller	r Brewing	and the development, and an artistic transfer the environ	<del>erito l'associateme</del>	WELL NO. RW-10
SITE LOCATION Southeast of Tag	ylor Property			ELEV	ATION AND DATUM Grade
DRILLING CONTRACTOR		DRILLER		LOGG	BED BY
B & B E	Prilling	F	R. Gryzinski		B. Schmidt
DRILLING RIG TYPE	DRILLING		DATE STARTE	<u>י</u> ם	DATE COMPLETED
Mobile B-61	HS	SA	6/12/96		6/13/96
WELL PERMIT NUMBER	DIAMETER (	of boring 4"	FLUSH MOUNT COMPLETION IN UNCONSOLIDATED FORMATION		
LEGEND	GROUT				
SLOTTED PVC  SLOTTED PVC  SLOTTED PVC  SLOTTED PVC  SCREEN  SCREEN  SCAPS  LOCK  ASAND  SEAL  PORTLAND  SEAL  POWDER  O CEMENT MI  O DRUMS-CUT	SEÅL  FILTER PACK  S USED  X  INT  ITTINGS		33.5'		28.5' 29' 30.5'
DEVELOPMENT INFO  STATIC WATER LEVEL BEFORE DEVEL  DEVELOPED WELL FOR 4 HOUF  AFTER 4 HOURS OF DEVELOPM  DRAWDOWN = GPN	PRMATON OPMENT WAS AS BY _pump, surge	e & block	38.5'		38.5'

EN. - ENCOUNTERED ST. - STABILIZED

53 HADDONFIELD ROAD: SUITE 316, CHERRY HILL, NEW JERSY 08002 PROJECT NO. WELL NO. CLIENT Miller Brewing 1097702 RW-11 SITE LOCATION **ELEVATION AND DATUM** North of RW-10 Grade DRILLING CONTRACTOR DRILLER LOGGED BY B & B Drilling R. Gryzinski B. Schmidt DRILLING METHOD DRILLING RIG TYPE DATE COMPLETED DATE STARTED Mobile B-61 HSA 6/13/96 6/14/96 DIAMETER OF BORING WELL PERMIT NUMBER FLUSH MOUNT COMPLETION IN UNCONSOLIDATED FORMATION 14" **LEGEND** GROUT UNSLOTTED PVC SEAL SLOTTED PVC FILTER PACK QUANTITY MATERIALS USED 10" SCREEN 28 40' RISER CAPS LOCK 301 SAND SEAL 32' **PORTLAND** 35' BENTONITE POWDER CEMENT MIX FLUSH MOUNT DRUMS-CUTTINGS DRUMS-WATER **DEVELOPMENT INFORMATON** DEVELOPED WELL FOR 4 HOURS BY pump, surge & block 451 AFTER 4 HOURS OF DEVELOPMENT, YIELD WAS 1 GPM. 45' DRAWDOWN = \_\_\_\_\_. SPECIFIC CAPACITY = \_\_\_\_ GPM/FOOT OF DRAWDOWN.

EN. - ENCOUNTERED ST. - STABILIZED

PROJECT NO.	097702	CLIENT Miller	Brewing		eranen eren eren eren eren eren eren ere	WELL NO. RW-12
SITE LOCATION					ELEV	ATION AND DATUM
North	of RW-11					Grade
DRILLING CONTRACTOR			DRILLER		LOGG	ED 8Y
	B & B D	rilling	F	R. Gryzinski		B. Schmidt
DRILLING RIG TYPE		DRILLING I	METHOD	DATE STARTE	D.	DATE COMPLETED
Me	obile B-61	HS	SA	6/14/96		6/15/96
WELL PERMIT NUMBER		DIAMÉTER (	OF BORING 4"			COMPLETION IN ED FORMATION
LE:	GEND					
UNSLOTTED PVC		GROUT				
□ PVC		SEAL				
SLOTTED PVC		FILTER PACK				
QUANTITY	MATERIALS SCREEN RISER CAPS LOCK SAND SEAL PORTLAND BENTONITE POWDER CEMENT MIX FLUSH MOUI DRUMS-CUT DRUMS-WAT	( NT TINGS ER RMATON	27.56 :.	40'		35'
DEVELOPED WELL FOR						
AFTER <u>4</u> HOURS O	F. DEVELOPME	ENT, YIELD WAS_	<u>4</u> _GPM.	50'		50'
DRAWDOWN =	_,					<u> </u>
SPECIFIC CAPACITY = _	GPM	/FOOT OF DRAW	DOWN.			

EN. ST.

PROJECT NO.	CLIENT		Productsvers in entry in gestlandskipteten fina interviewet oping.	ersendelisäinen sannen ja	WELL NO.	eerstering van de reste bliefe en geb
1097702	Mille	r Brewing				RW-13
SITE LOCATION		ELEVA	TION AND E	DATUM		
North of RW-1			Grade		3	
DRILLING CONTRACTOR		ORILLER		LOGGE	ED BY	
B&BI	Orilling	I	R. Gryzinski		B. Schm	ridt
DRILLING RIG TYPE	DRILLING	METHOD	DATE STARTE	D.	DATE CO	MPLETED
Mobile B-61	Water I	Rotary	6/27/96	į	6/27	/96
WELL PERMIT NUMBER	DIAMETER (	OF BORING	FLUSH M	OUNT	OMPLETION	N IN
	1.	4 <sup>.u</sup>			D FORMAT	
LEGEND						
UNSLOTTED	GROUT			·		
PVC	SEAL		[			
	SEAL				<b>***</b>	
SLOTTED PVC	FILTER PACK					
QUANTITY MATERIAL  15' SCREEN	LS USED					
15'SCREEN			<del></del>		<b>₩</b>	10'
CAPS				≋ !	<b>₩</b>	
LOCK					<b>⋙</b> -	
SAND			l 🔓			48'
						50!
	•		53'		L	<del> </del>
0_ POWDER	-					
OCEMENT M	IX					
FLUSH MOI						
DEVELOPMENT INFO	<del></del>					
		<del>7</del> :5ο .				
STATIC WATER LEVEL BEFORE DEVE						redamentifics;
DEVELOPED WELL FOR 4 HOUS						
AFTER 4 HOURS OF DEVELOPM	ENT, YIELD WAS_	l GPM.	68'		<b>—</b>	68'
DRAWDOWN =					Ľ	
SPECIFIC CAPACITY = GPM	FOOT OF DRAW	POWN.				

EN. - ENCOUNTERED ST. - STABILIZED