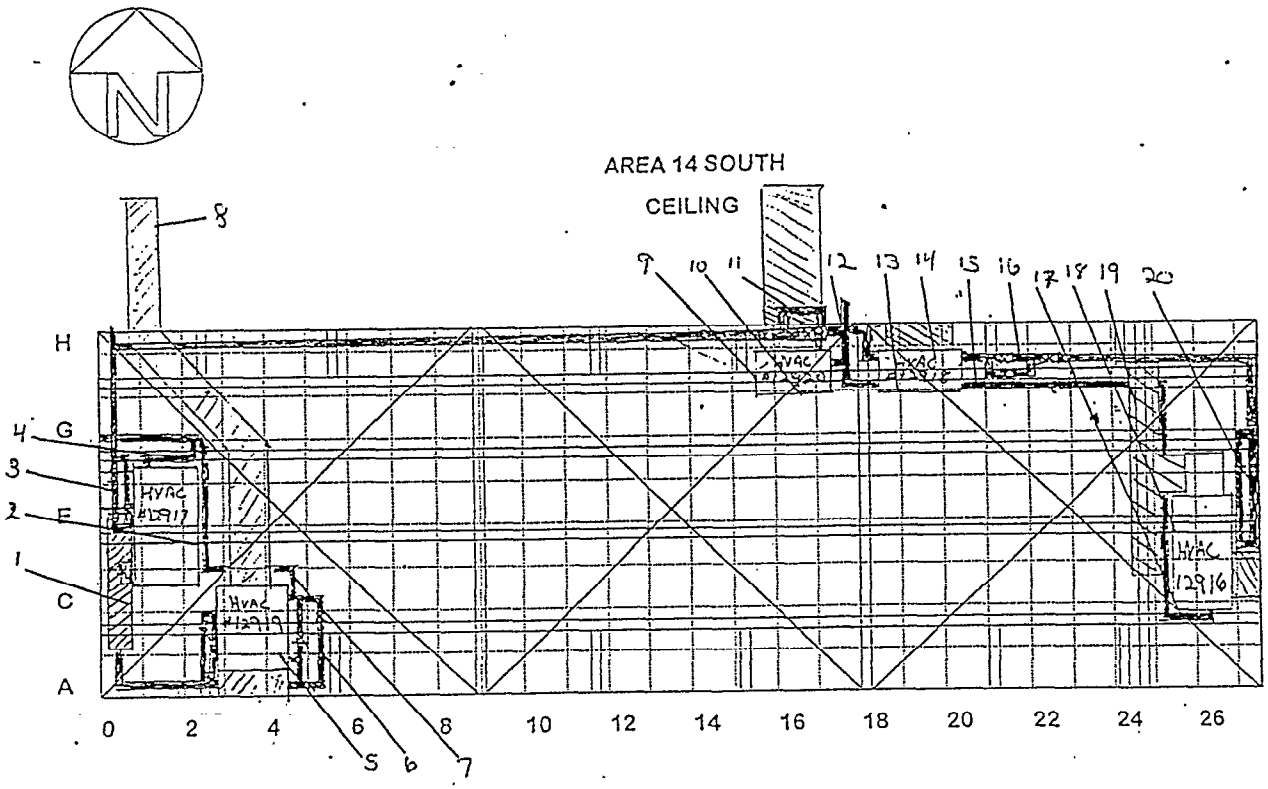
HILBERT ASSOCIATES INC
RADIOLOGICAL ENGINEERS

IDM Environmental
Bldg. 14, Praxair Site
Tonawanda, NY 14151

Radiological Survey Form

Hilbert Associates, Inc
Radiological Consultants
640 Maple Ave
Saratoga Springs, NY 12866
Phone: 518-584-0166
Fax: 518-584-8529
Contract # 95012

Date / Time 9/2-3/97	Tech D. PITMAN	Instruments / sn 2221-B 86308
Location / Purpose Bldg 14 Area 14 South - HVAC - Process Pipe Debris		Survey # 720 RWP # 06



1M X 1M GRID

Loc	Type	Description	Gross	Δ DPM	Gross	Beta DPM	Loc	Type	Description	Gross	Δ DPM	Gross	Beta DPM
1	S	HVAC 12917 Exhaust Duct	0	-.6	51	-39	8	S	HVAC 12919 Exhaust Duct	1	2.4	71	32
2	S	" Intake Duct	0	-.6	58	-14	9	S	HVAC 12920 Intake Duct	0	-.6	44	-64
3	S	" Steam	0	-.6	71	32	10	S	" Exhaust Duct	0	-.6	62	0
4	S	" Condensate	0	-.6	69	25	11	S	" Steam	0	-.6	46	-57
5	S	HVAC 12919 Intake Duct	0	-.6	48	-50	12	S	" Condensate	0	-.6	67	0
	S	" Steam	0	-.6	48	-50	13	S	HVAC 12918 Intake Duct	0	-.6	71	32
7	S	" Condensate	0	-.6	64	7	14	S	" Exhaust Duct	0	-.6	65	11

Comments: S=100 cm² Swipe

KW. 9/9/97

		BKD	EFF	MDA
Scaler S/N 91234				
CT = 1 min	Alpha:	.21	.33	15
Tech SMALLRIDGE	Beta:	82	.28	140

Review [signature]

ION TECHNOLOGY, INC.
640 Maple Ave
Saratoga Springs, NY
(518) 584-0166

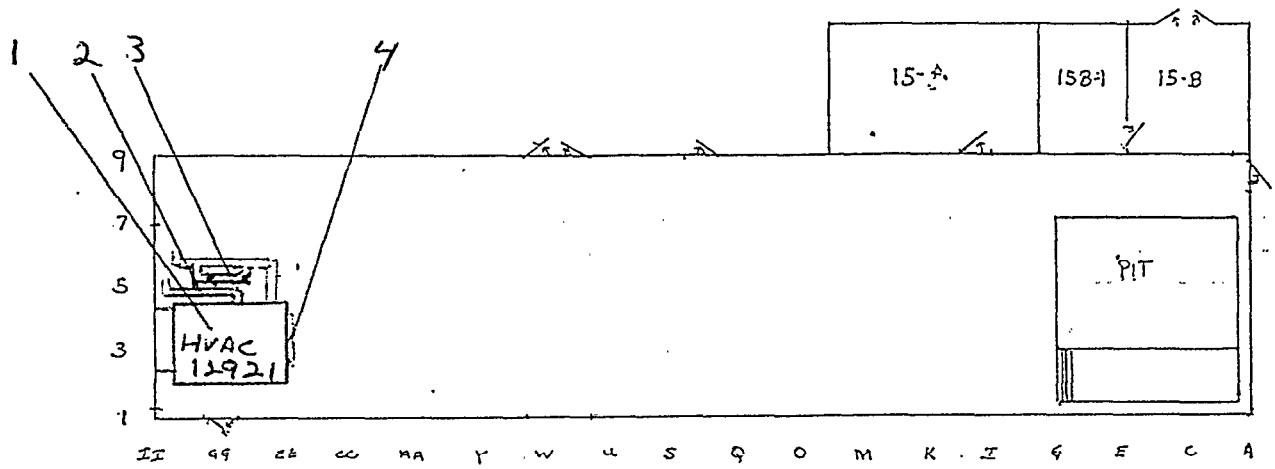
RADIOLOGICAL SURVEY

Project: B14/Praxair
Area: 15

Date/Time 9/4/97	Tech D. PITMAN	Instrument / sn 2221 - B 86308
Location/ Purpose BLDG 14 AREA 15		Survey # 721 RWP# 06
HVAC - Process Pipe DeLin		

BLDG 14
AREA 15
FLOOR/CEILING

N ⇦



SCALE - 1/4" = 1 METER

Loc	Type	Description	Gross	α dpm	Gross	β dpm	Loc	Type	Description	Gross	α dpm	Gross	β dpm
1	S	HVAC 12921 INTAKE DUCT	0	-.6	53	75							
2	S	" combustion	3	9	75	46							
3	S	" Steam	1	2.4	55	-25							
4	S	" Exhaust Duct	0	-.6	45	-60							

Type:s = smearable, dp = direct probe	Scalar S/N 91234	BKD	EFF	MDA
Comments: S = 100 cm² swipe	CT= 1m DATE 9/8/97 α:	.21	.33	15
	Tech SmallRidge β:	62	.08	140

Review: [illegible]

Encl 3.3 to HSP 210

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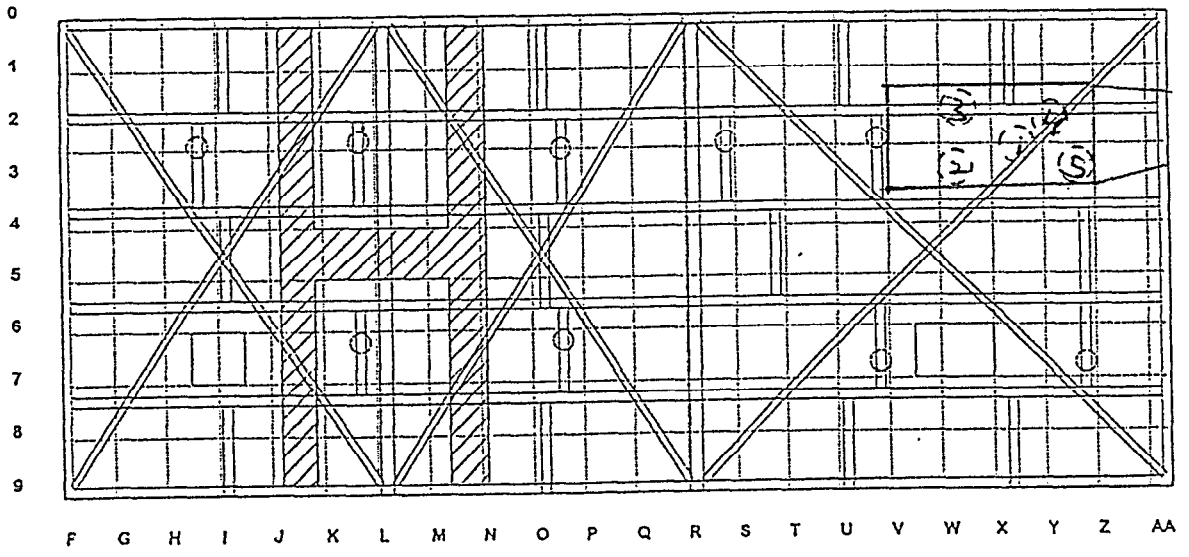
Fax: 518-584-8529
Contract # 95012

8-11-97/1715	Tech D. Pitman	Instruments / sn	2221-A 86314
Purpose B14 A12 HVAC unit -		Survey # 635	RWP # N/A
nal VERIFICATION Survey - Process Piping			

AREA 12 OVERHEAD (VIEW LOOKING DOWN)



= internal 100 cm² swipe location

Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
S	HVAC internal	0	0	56	-14							
S	↓ ↓	1	2	47	-45							
S		0	0	51	-31							
S		0	0	47	-45							
S		1	2	63	10							

ts: All direct Probe measurements
Than 1K dpm/100cm²

			BKD	EFF	MDA
Scaler S/N 91234					
CT = 1 min	Alpha:	43/180	0.25	0.32	16
Tech D. Pitman	Beta:	1074/180	6	0.29	134

Review [signature]

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IDM Environmental
Bldg. 14, Praxair Site
Tonawanda, NY 14151

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Hilbert Associates, Inc
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640 Maple Ave
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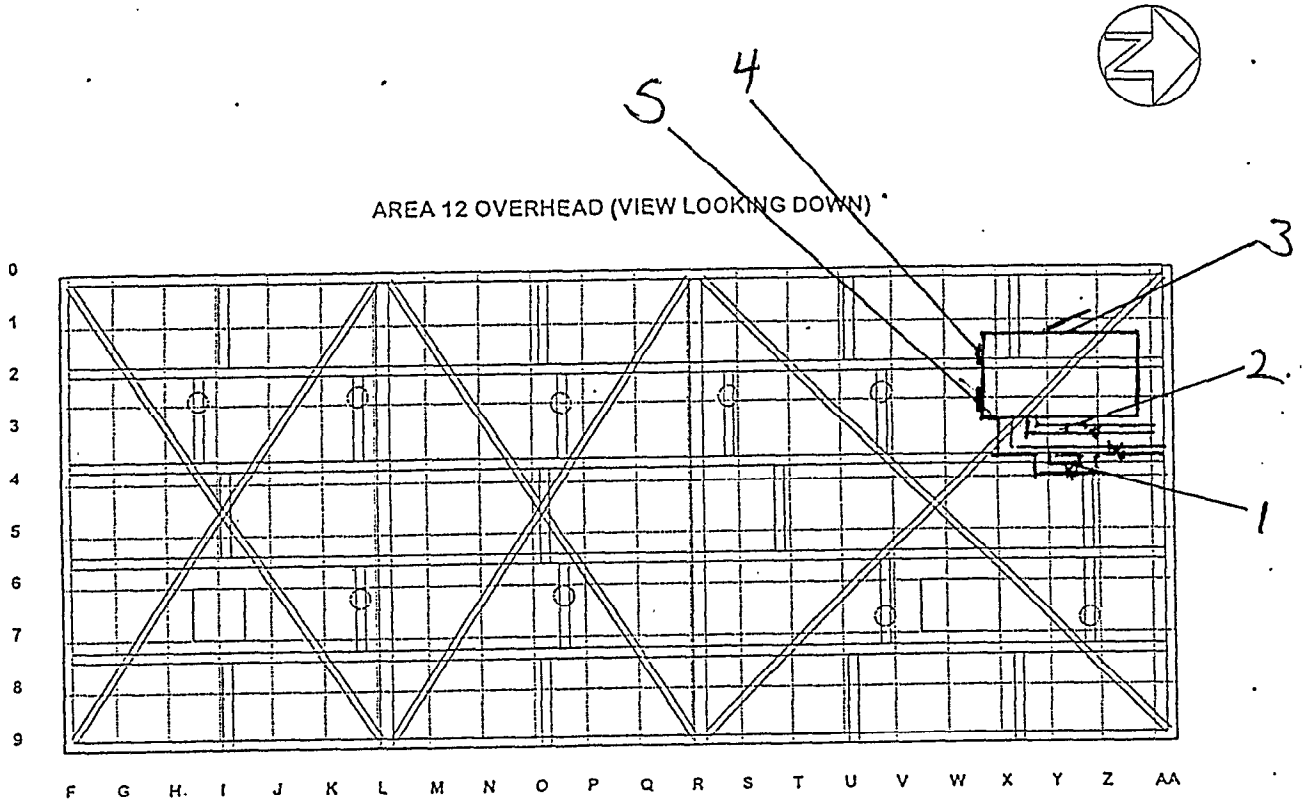
Phone: 518-584-0166
Fax: 518-584-8529
Contract # 95012

Time 7-22-97 / 1500	Tech D. PITMAN	Instruments / sn 2221-C 89648
on / Purpose B14 A12		Survey # 555 RWP # 06
Loss Pipe HVAC		



oc	Type	Description	Gross	Δ DPM	Gross	Beta DPM	Loc	Type	Description	Gross	Δ DPM	Gross	Beta
	S	Steam	0	0	58	-7							
2	S	Condensate	1	2	66	21							
3	S	Intake	5	15	71	38							
4	S	Hot Air Duct	4	12	67	24							
5	S	Hot Air Duct	0	0	49	-38			VENT INTAKE SAMPLE @			87.7 pc/g	
												TOTAL	K

			BKD	EFF	MDA
Scaler S/N L2929 (I)					
CT - 7/23/97	Alpha:		.23	.32	15
Tech [signature]	Beta:		60	.29	134

Comments:

7/23/97 Rev

Review [signature]

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IDM Environmental
Bldg. 14, Praxair Site
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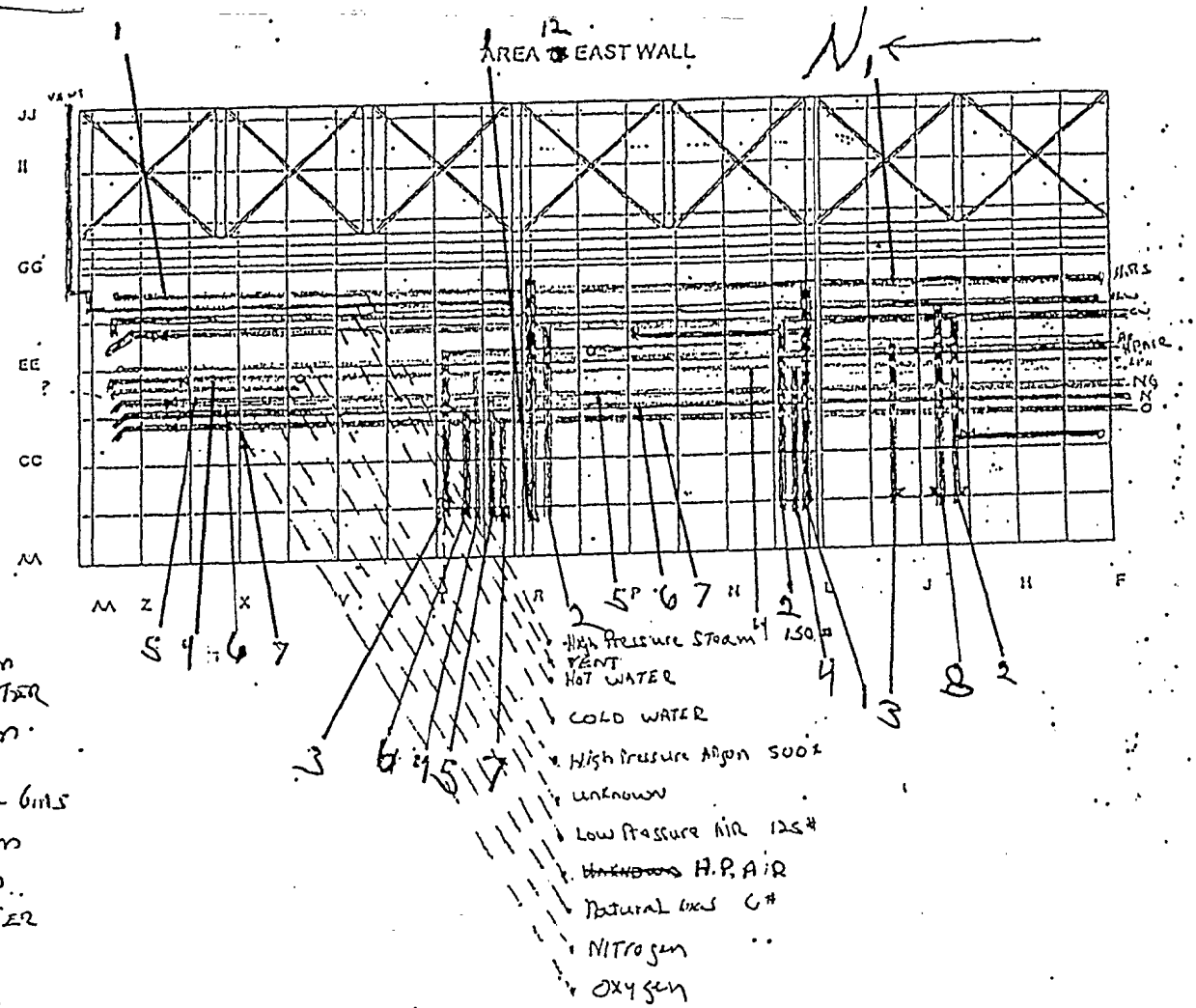
Fax: 518-584-8529
Contract # 95012

Date / Time 6-24-97 / 1600	Tech D. Pitman / M. Zigo	Instruments / sn 2221-C 89648
Location / Purpose B-14 A-12		Survey # 560 RWP # 06
Process Piping - Composite Petro Sample Locations		



H.P. STEAM
COLD WATER
H.P. Argon
L.P. AIR
NATURAL GAS
Nitrogen
Oxygen
HOT WATER

Loc	Type	Description	Gross	Δ DPM	Gross	Beta DPM	Loc	Type	Description	Gross	Δ DPM	Gross	Beta DPM
		N/A							N/A				

Comments: Numbers identify systems for composite
Petrive Samples to be counted.
Direct probe readings on all external pipe surfaces
5K dpm.

Scaler S/N		BKD	EFF	MDA
CT =	Alpha:			
Tech	Beta:			

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IDM Environmental
Bldg. 14, Praxair Site
Tonawanda, NY 14151

Radiological Survey Form

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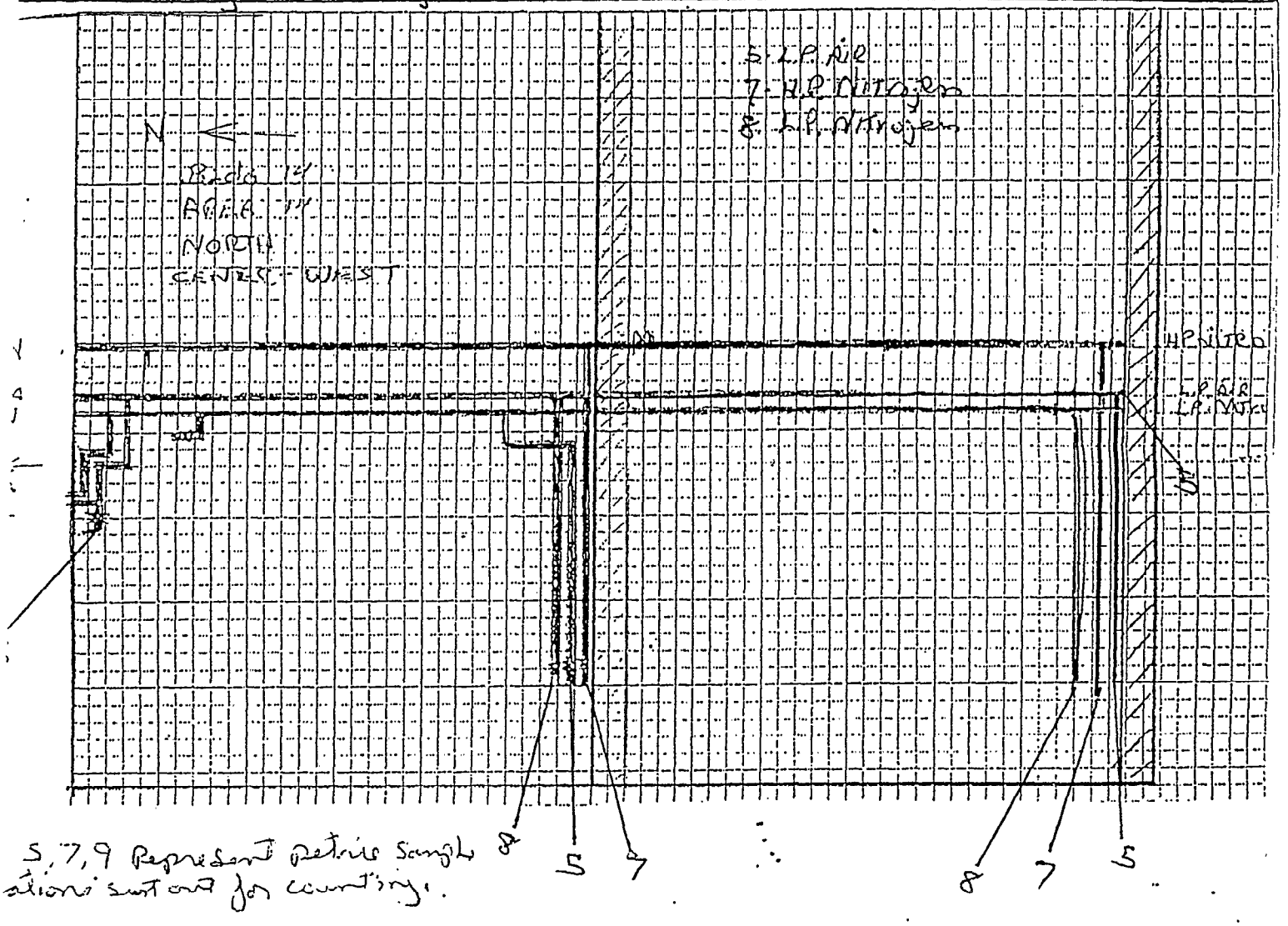
Fax: 518-584-8529
Contract # 95012

Time 6-25-97/1130	Tech D. Pitman	Instruments / sn 2221 - C 89648
on / Purpose B-14 A-14 NORTH		Survey # 557 RWP # 06
Process Piping - Petrie Sample Locations		



5, 7, 9 Represent petrie sample locations sent out for counting.

Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM

ments: ALL Pipe Swabs in These Locations must ≤ 20 cpm by Field Instrument. Direct probe readings on external pipe surfaces 5K dpm	Scaler S/N	BKD	EFF	MDA
	CT = Alpha:			
	Tech Beta:			

Review [signature]

IDM Environmental
Bldg. 14, Praxair Site
Tonawanda, NY 14151

Radiological Survey Form

RT ASSOCIATES INC
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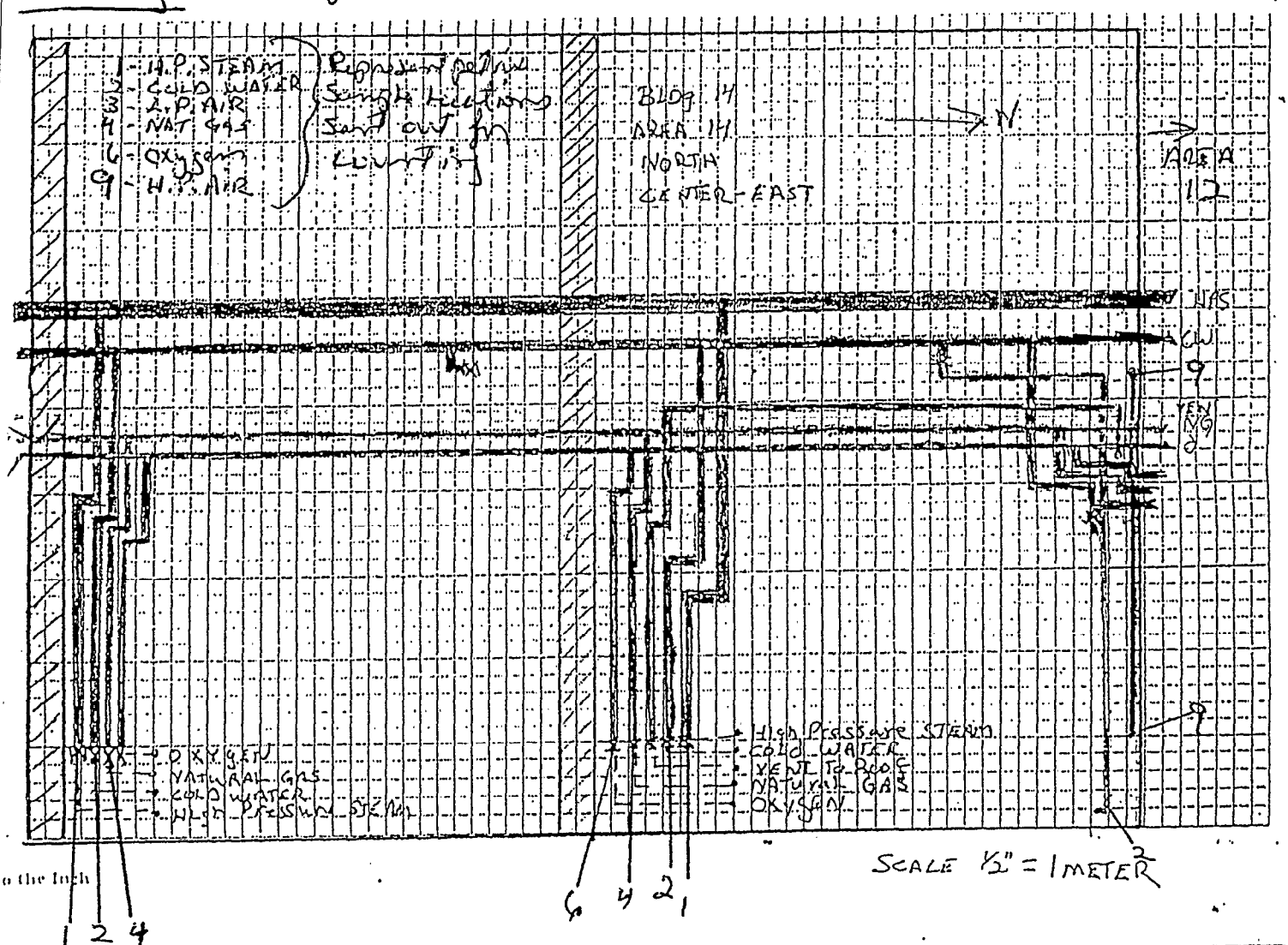
Hilbert Associates, Inc
Radiological Consultants
640 Maple Ave
Saratoga Springs, NY 12866
Phone: 518-584-0166
Fax: 518-584-8529
Contract # 95012

me 6-25-97/1130	Tech D. Pitman	Instruments / sn 2221-C 89648
/ Purpose B-14 A-14 ~~South~~ NORTH		Survey # 558 RWP # 06
...ess Piping - Retrieve Sample Locations		



Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
	N/A							N/A				

...ments: All Pipe Swabs in Those Locations ...nt ≤20 cpm by Field Instrument. ...direct probe readings on external pipe surfaces ...50 dpm

Scaler S/N		BKD	EFF	MDA
CT =	Alpha:			
Tech	Beta:			

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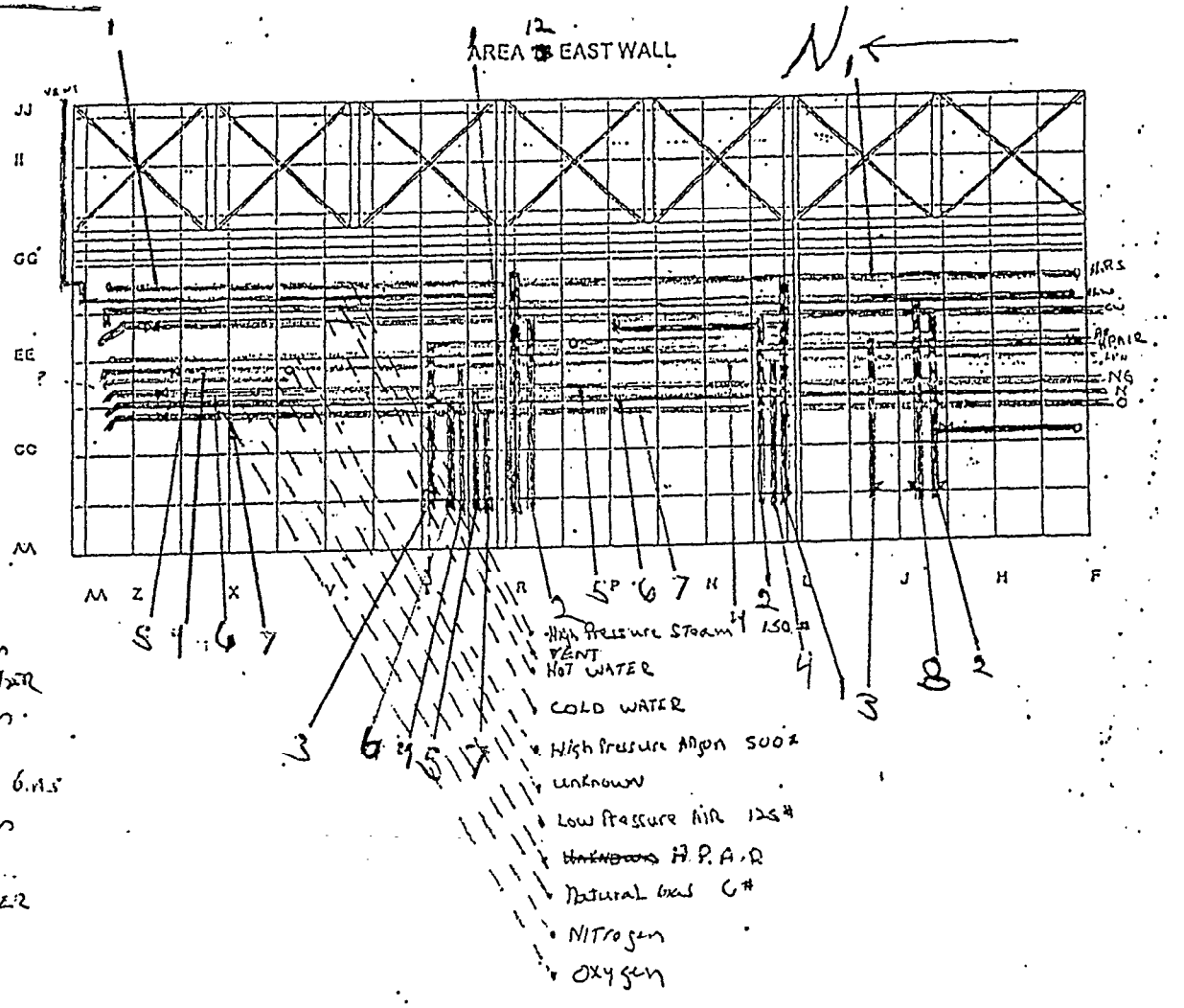
Fax: 518-584-8529
Contract # 95012

Time 6-24-97 / 1600	Tech D. Pitman / M. Zigo	Instruments / sn 2221-C 89648
on / Purpose B 14 A-12		Survey # 559 RWP # CC
Process Piping Internal Swipe		



.P. STEAM
COLD WATER
H.P. Argon
H.P. AIR
NATURAL GAS
Nitrogen
Oxygen
HOT WATER

Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
S	HOT WATER	0	-1	53	-24							
S	HP STEAM	0	-1	51	-31							
S	Argon E WALL	0	-1	70	34							
S	Argon W. WALL	0	-1	63	10							
S	HOT WATER	0	-1	66	21							
S	Argon W. WALL	0	-1	64	14							

ments: S=100 cm² Swipe
ect probe readings on all external pipe
faces <5K DPM

		BKD	EFF	MDA
Scaler S/N 91234				
CT - 1 min	Alpha:	35/180 .19	.33	15
Tech D. Pitman	Beta:	5531/180 60	.29	135

Review [signature]

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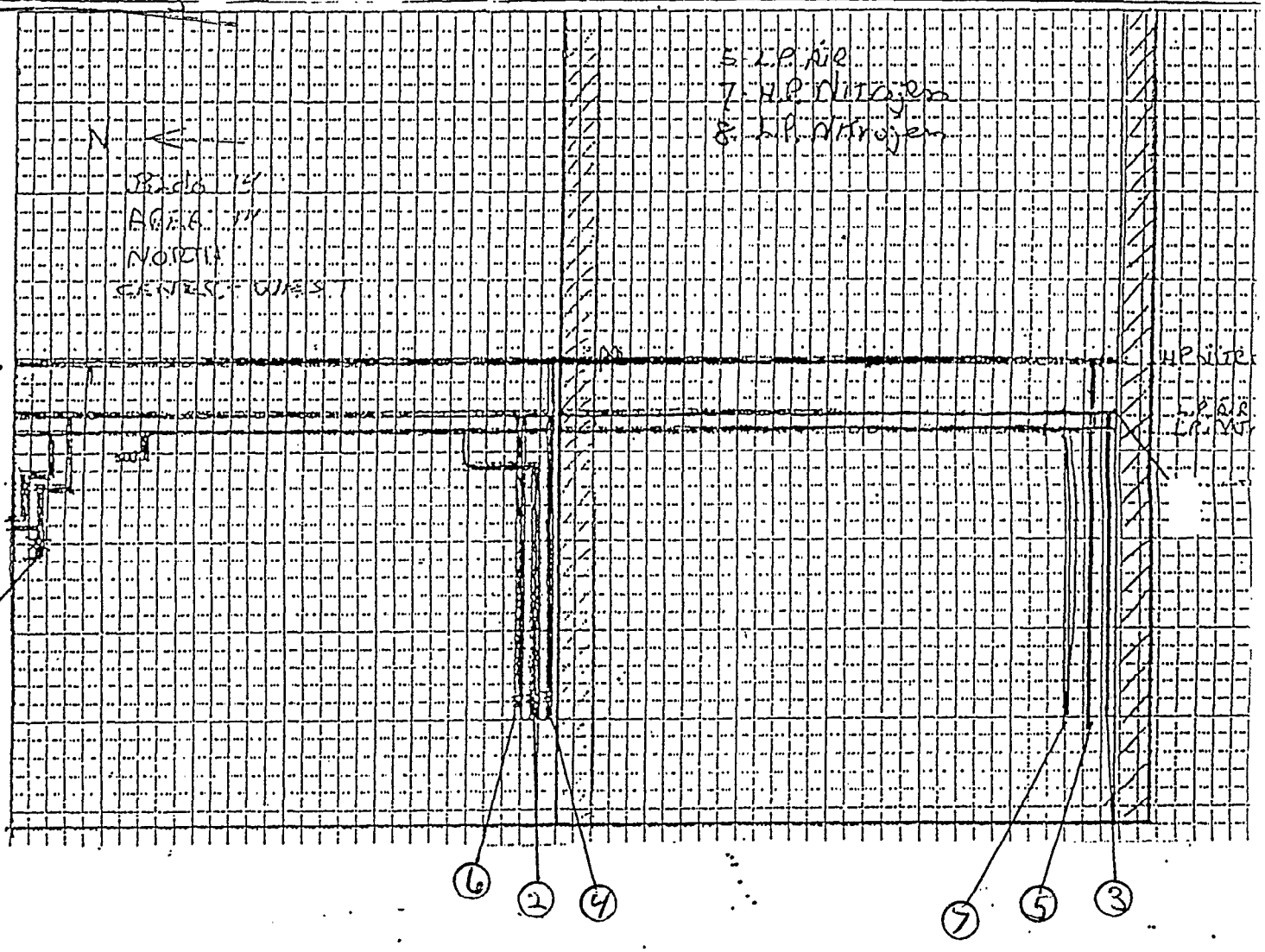
Fax: 518-584-8529
Contract # 95012

Time 6-25-97/1130 | Tech D. Pitman | Instruments / sn 2221 - C 89648

on / Purpose B-14 A-14 NORTH | Survey # 562 | RWP # 06

Process Piping



Type	Description	Gross	Δ DPM	Gross	Beta DPM	Loc	Type	Description	Gross	Δ DPM	Gross	Beta DP
S	LP AIR	0	-1	54	-21							
S	LP AIR	1		59	-3							
S	LP AIR	0	-1	60	0							
S	H.P. N_2	0	-1	56	-14							
S	H.P. N_2	1		55	-17							
S	L.P. N_2	0	-1	63	10							
S	L.P. N_2	0	-1	61	3							

ments: Direct probe readings on all external surfaces, <5K DPM.

		BKD	EFF	MDA
Scaler S/N 91234				
CT - 1 mm	Alpha:	35/150 .19	.33	15
Tech D. Pitman	Beta:	10837/150 60	.29	135

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IDM Environmental
Bldg. 14, Praxair Site
Tonawanda, NY 14151

Radiological Survey Form

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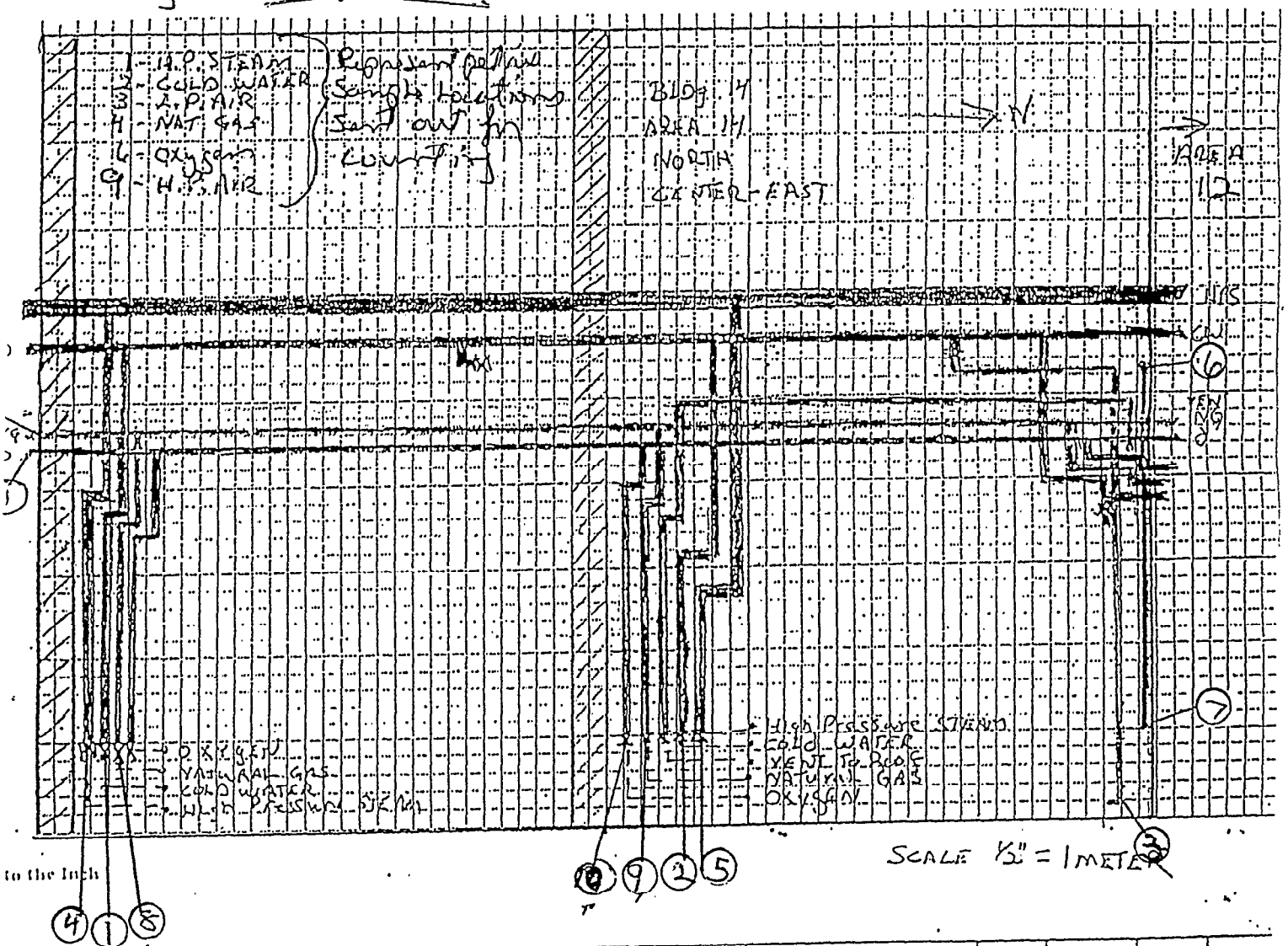
Phone: 518-584-0166
Fax: 518-584-8529
Contract # 95012

Time 6-25-97 / 1130	Tech D. Pitman	Instruments / sn 2221-C 89648
Loc / Purpose B-14 A-14 NORTH		Survey # 561 RWP # 06

Purpose: Process Piping



: to the Inch

Loc	Type	Description	Gross	Δ DPM	Gross	Beta DPM	Loc	Type	Description	Gross	Δ DPM	Gross	Beta DPM
	S	C. WATER	0	-1	67	24	8	S	NAT GAS	1	2	62	7
	S	C. WATER	0	-1	67	24	9	S	NAT GAS	0	-1	65	17
	S	C. WATER EPT WASH	1	2	49	-38	10		O_2	0	-1	63	10
	S	H.P. STEAM	0	-1	61	3	11		O_2	0	-1	60	0
	S	H.P. STEAM	0	-1	61	3	12		NAT GAS	1	2	64	14
	S	H.P. AIR	0	-1	58	-7							
	S	H.P. AIR	1	2	59	-3							

Direct probe reading on all external surfaces < 5000 DPM.

		BKG	EFF	MDA
Scaler S/N 91234				
CT = 1 min	Alpha:	57/50 .19	.33	1.5
Tech D. Pitman	Beta:	1583/50 63	.29	135

Review

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Bldg. 14, Praxair Site
Tonawanda, NY 14151

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Hilbert Associates, Inc
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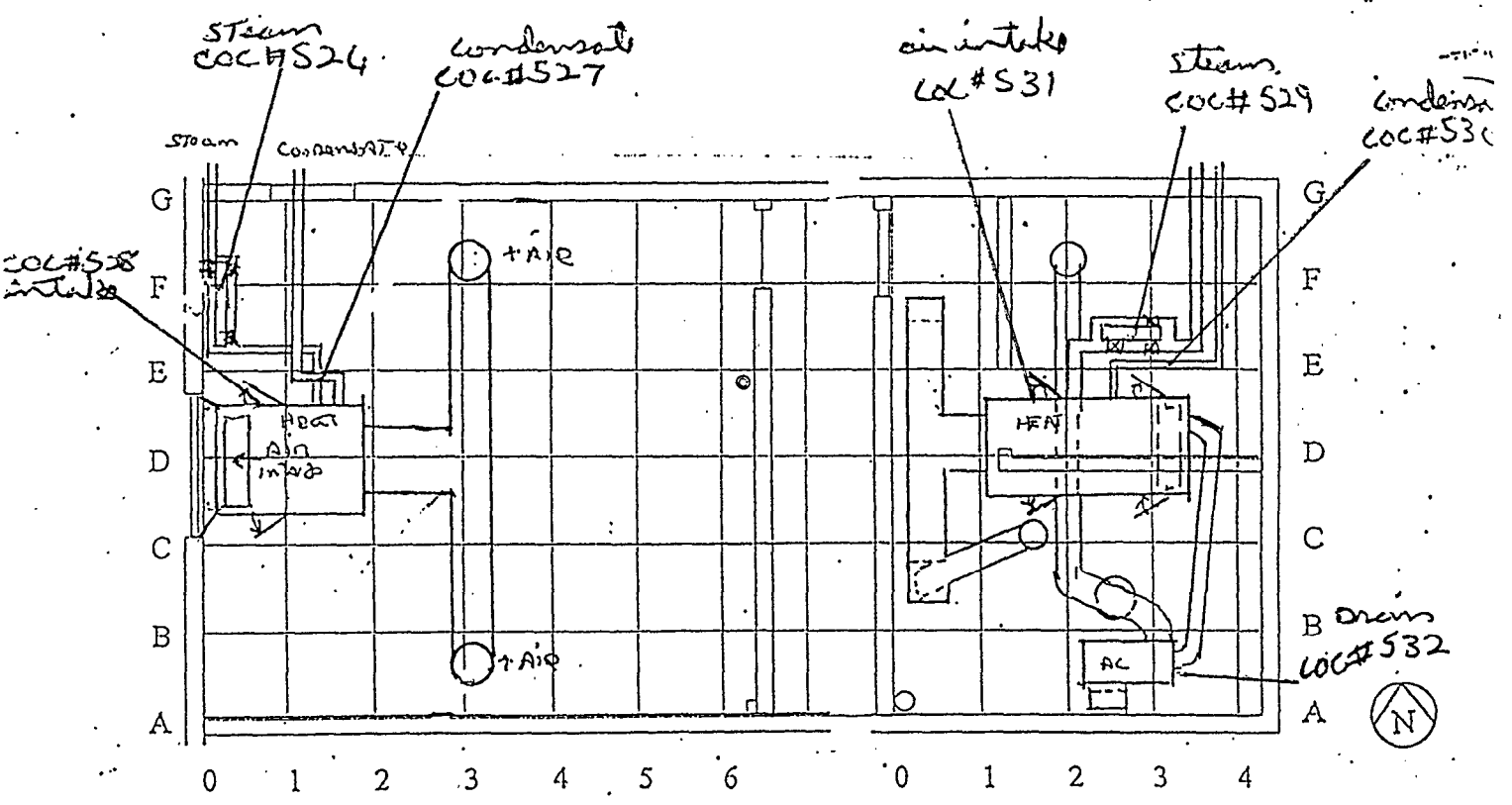
Fax: 518-584-8529
Contract # 95012

7-21-97 / 1015	Tech D. Pitman	Instruments / sn 2221-C 89648	
Purpose B14 A4 A.		Survey # 553	RWP # 06
ess Piping - HVAC			



COC# = Chain of custody Number.
This represents the locations that petri samples have been taken and sent out for counting.

Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
	N/A							N/A				

ents: S = 100 cm² Swipe	Scaler S/N	BKG	EFF	MDA
	CT = Alpha:			
	Tech Beta:			

Review

RT ASSOCIATES INC
OLOGICAL ENGINEERS

IDM Environmental
Bldg. 14, Praxair Site
Tonawanda, NY 14151

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Radiological Consultants
640 Maple Ave
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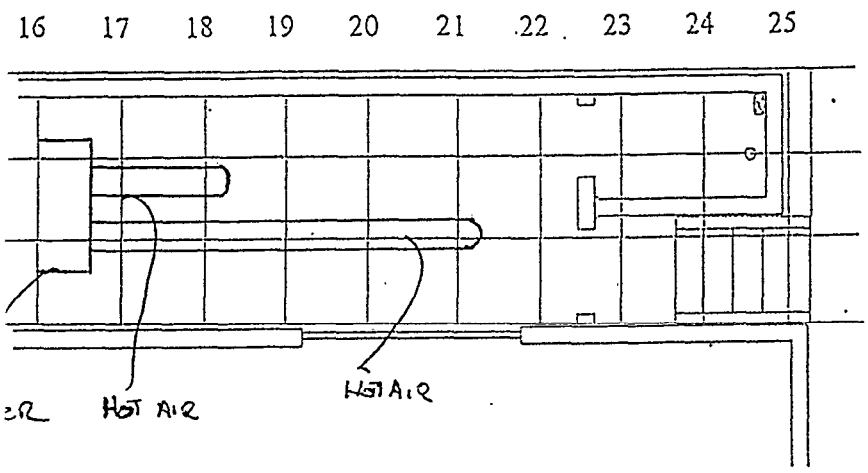
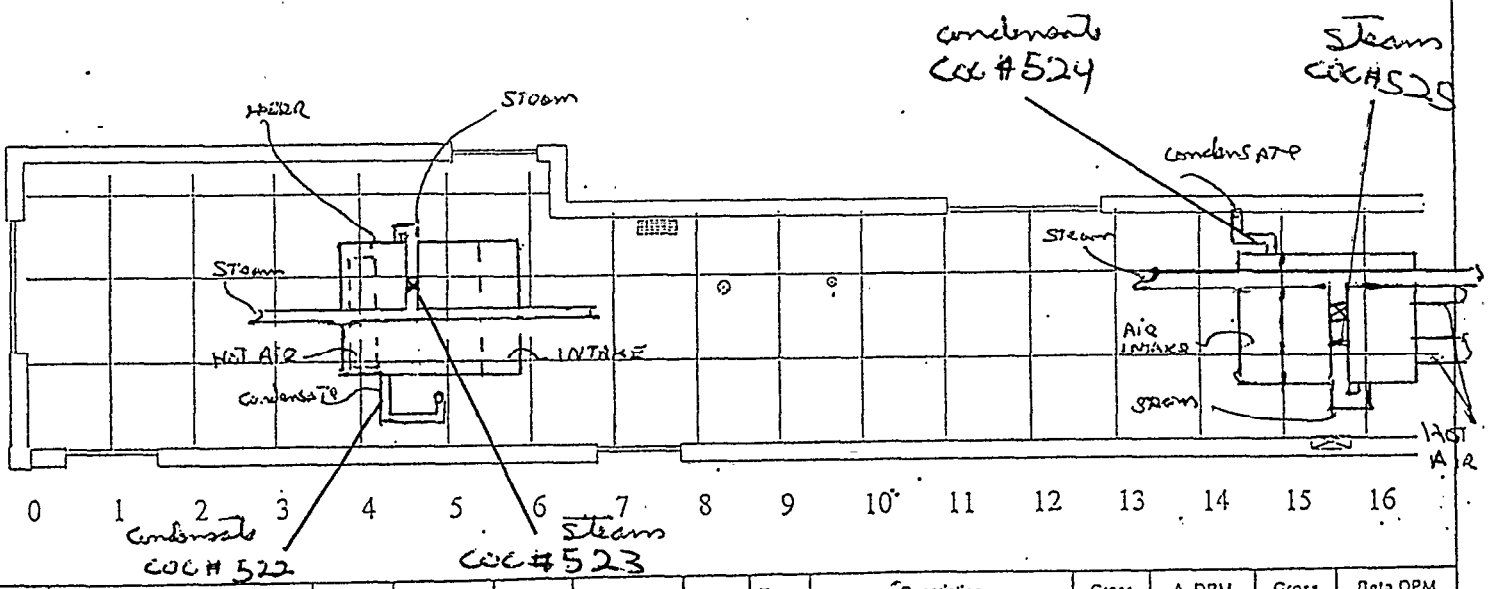
Phone: 518-584-0166
Fax: 518-584-8529
Contract # 95012

me 7-21-97 / 1630	Tech D. PITMAN	Instruments / sn	2221 . C 89648
/ Purpose B14 Large HALLWAY		Survey # 554	RWP # 06
ss Piping - HVAC Petrie Samples			



BLDG 14
Large Hallway



Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
		NA						NA				

ents: COC# = Chain of custody number.
s represents the location that petrie
phs have been taken and sent out
r counting.

Scaler S/N		BKD	EFF	MDA
CT =	Alpha:			
Tech	Beta:			

Review [signature]

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Bldg. 14, Praxair Site
Tonawanda, NY 14151

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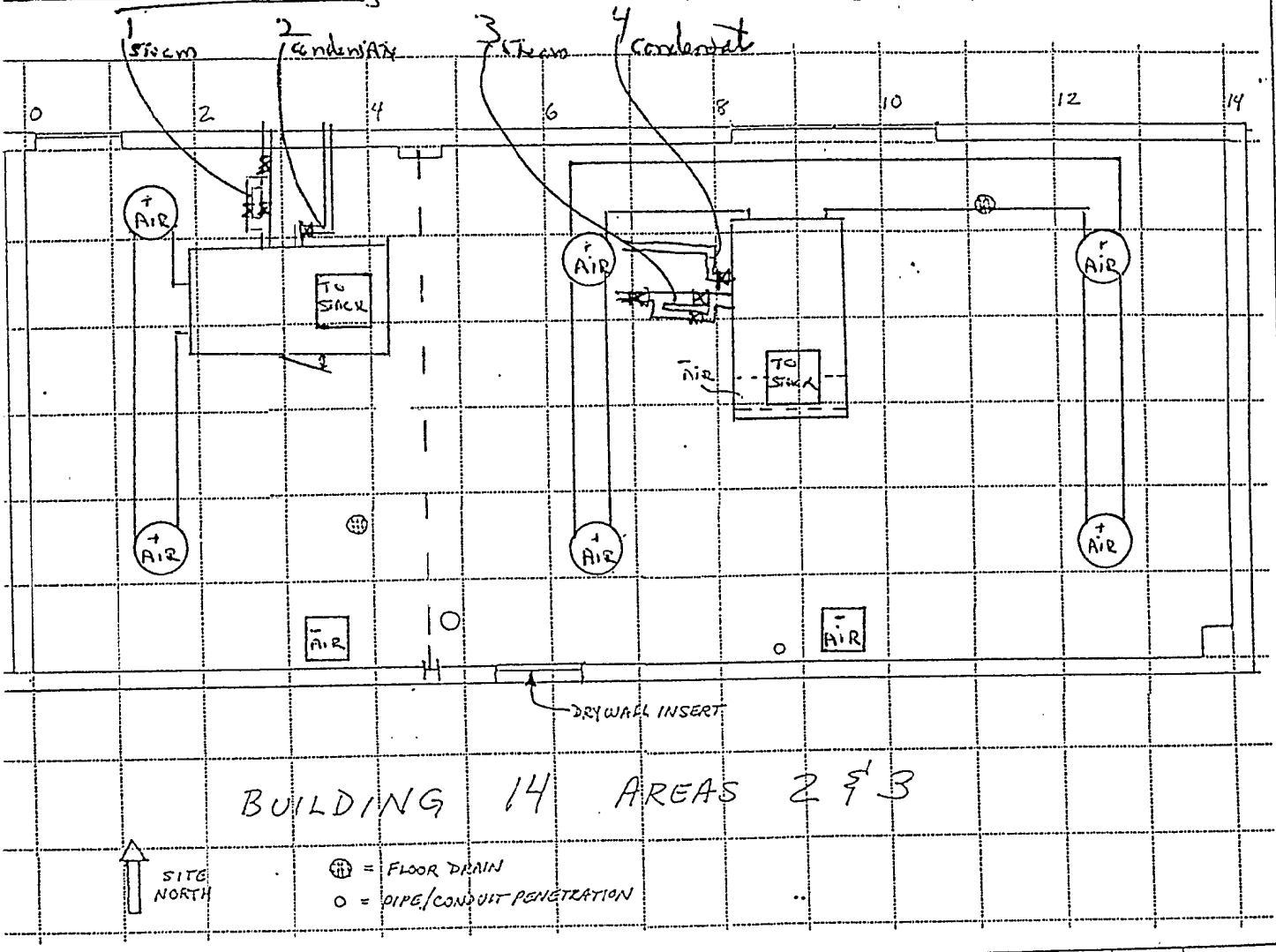
Contract # 95012

7-17-97	Tech: D. PITMAN	Instruments / sn: 2221 - C. 89648	
Purpose: Bldg 14 Area 2 + 3		Survey #: 547	RWP #: 06
AC - Process Piping			



Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
Grab	Pipe Trap Sludge											
Grab												
Grab												
Grab												

		BKD	EFF	MDA
Scaler S/N				
CT =	Alpha:			
Tech	Beta:			

Comments: All Samples < 20 CCPM by field instrument

Review: [signature]

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640 Maple Ave
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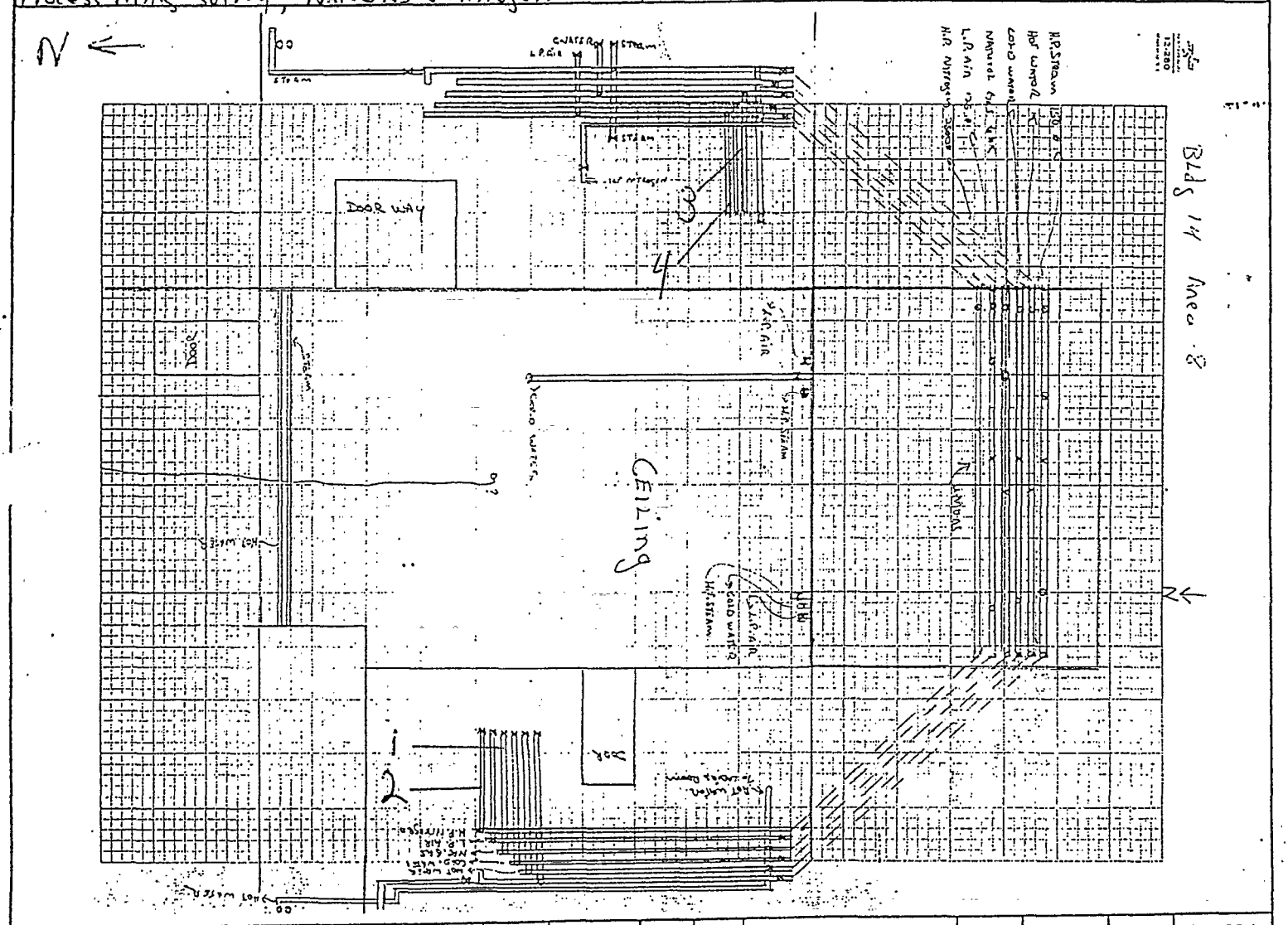
Fax: 518-584-8529
Contract # 95012

Date / Time 5-27-97 / 1700	Tech D. PITMAN	Instruments / sn 3221-C 89648	
Location / Purpose B-14 A-8		Survey # 351	RWP # 06
Process Piping Survey, NAT. GAS & Nitrogen			



Loc	Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
1	S	NAT GAS	0	-0.6	54	-17							
2	S	Nitrogen	0	-0.6	72	45							
3	S	NAT GAS	0	-0.6	74	52							
4	S	Nitrogen	1	2.6	52	-24							

Comments:

		BKD	EFF	MDA
Scaler S/N 91234				
CT = 1 min	Alpha:	1.42/7 0.26	0.31	15
Tech D. PITMAN	Beta:	41.29/7 59	0.29	133

Review [signature]

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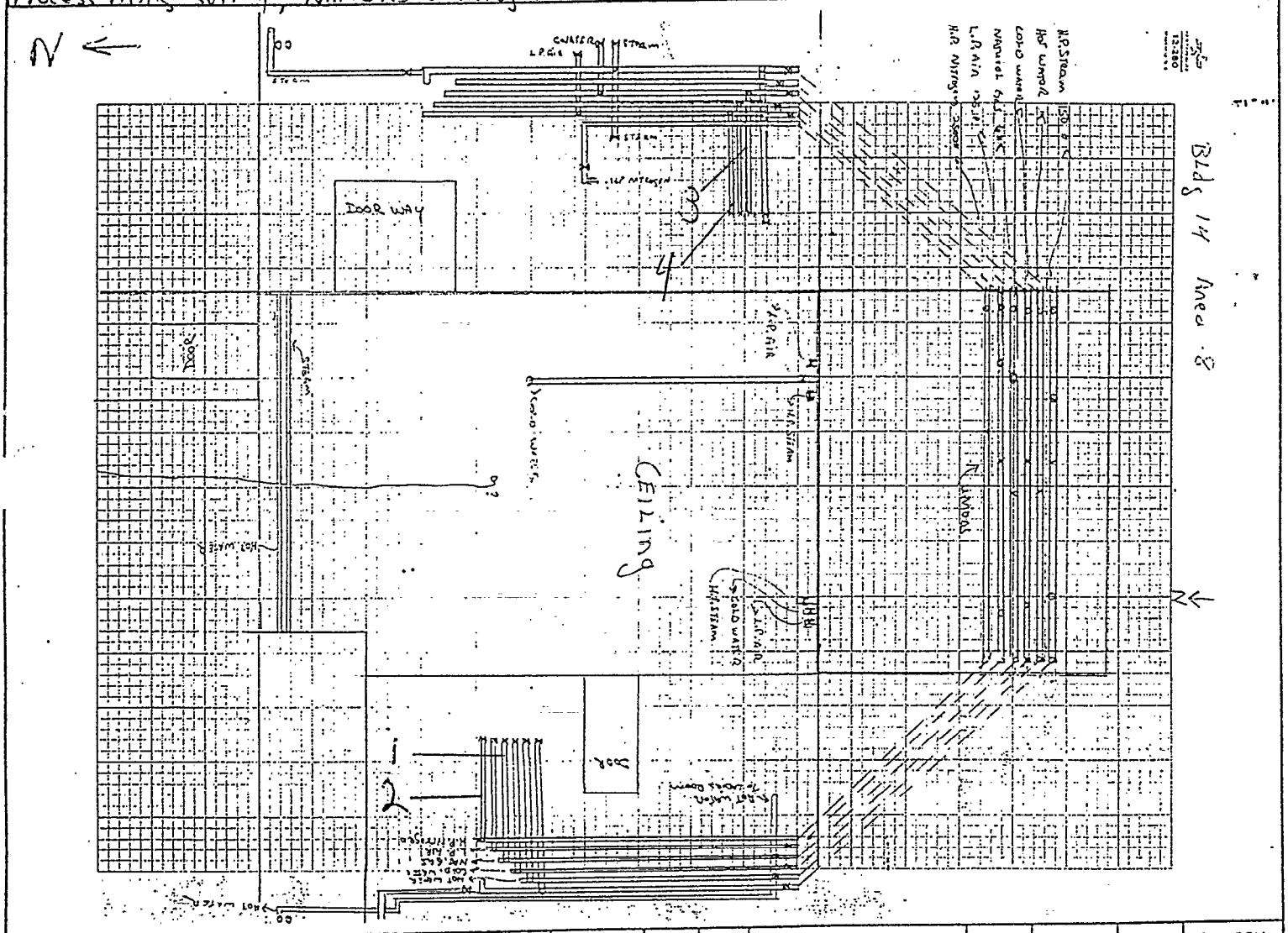
Fax: 518-584-8529
Contract # 95012

Date / Time 5-27-97 / 1700	Tech D. PITMAN	Instruments / sn 3221 - C 89648
Location / Purpose B-14 A-8		Survey # 381 RWP # 06
Process Piping Survey, NAT. GAS & Nitrogen		



Loc	Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
1	S	NAT GAS	0	-0.6	54	-17							
2	S	Nitrogen	0	-0.6	72	45							
3	S	NAT GAS	0	-0.6	74	52							
4	S	Nitrogen	1	2.6	52	-24							

Comments:

		BKD	EFF	MDA
Scaler S/N 91234				
CT = 1 min	Alpha:	142/700 0.26	0.31	15
Tech D. PITMAN	Beta:	41249/700 59	0.29	133

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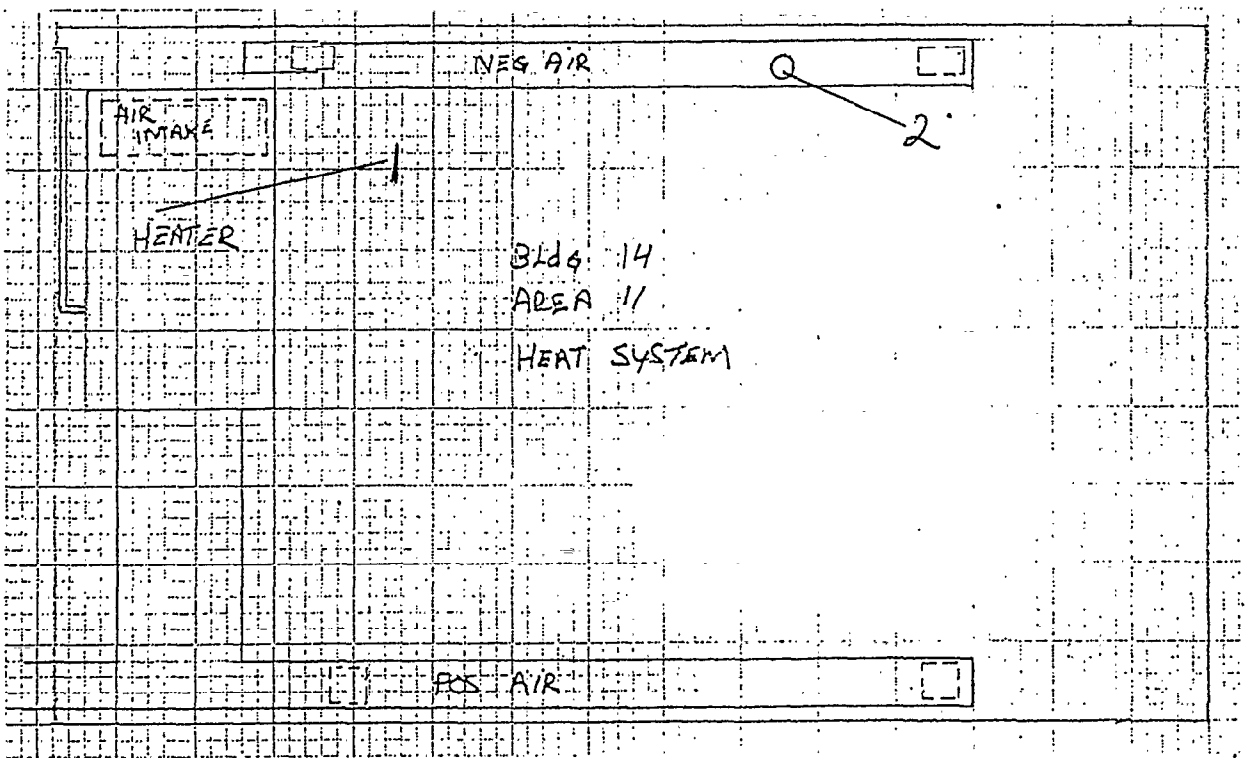
Saratoga Springs, NY 12866
Phone: 518-584-0166
Fax: 518-584-8529
Contract # 95012

Time 5-22-97/1700	Tech D. Pitman	Instruments / sn 2221-C 89648
on / Purpose B-14 Area 11		Survey # 392 RWP # 06
ess Piping Survey - Heater + Duct		



Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
LAS	Heater			60	130							
Debris	Room Exhaust Channel			49	25							

			BKD	EFF	MDA
ments:	Scaler S/N 89648				
mples Field Counted Scaler Mode	CT = 1 min	Alpha:	—	—	—
	Tech D. Pitman	Beta:	34	0.20	

Review [signature]

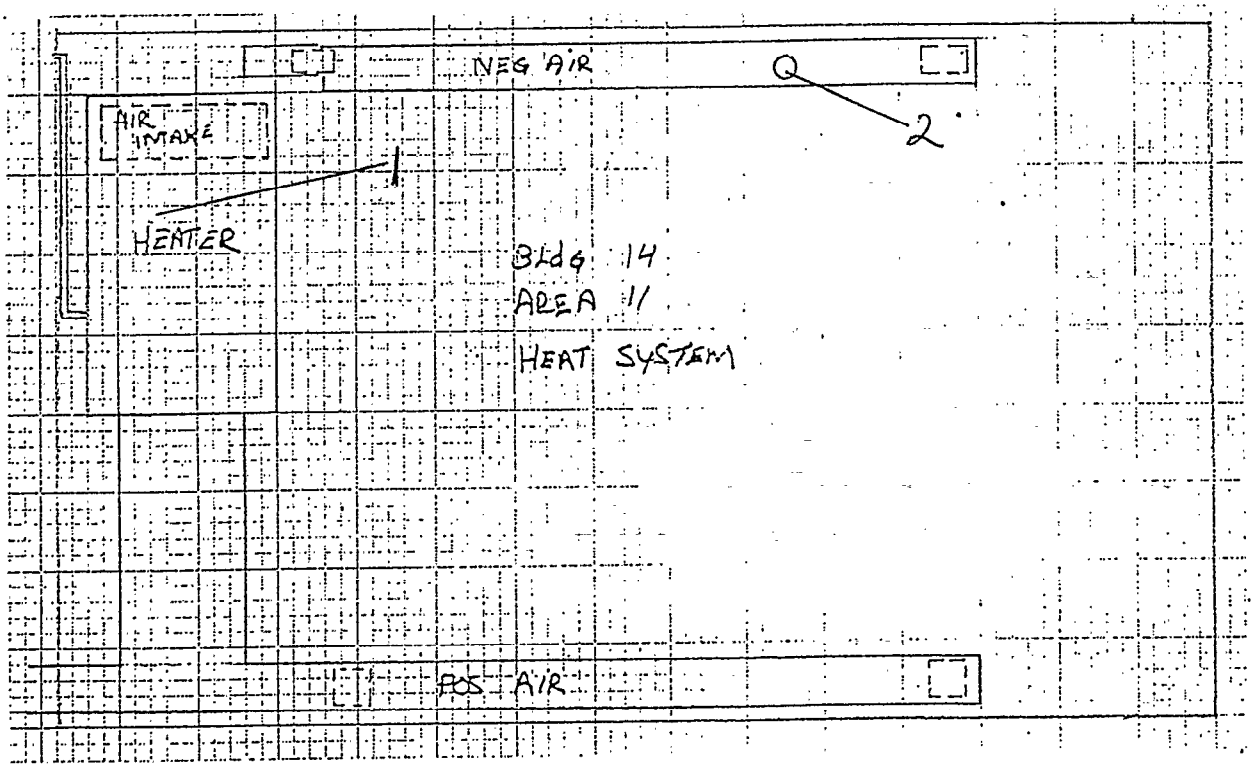
ERT ASSOCIATES INC
IOLOGICAL ENGINEERS

IDM Environmental
Bldg. 14, Praxair Site
Tonawanda, NY 14151

Radiological Survey Form

Hilbert Associates, Inc
Radiological Consultants
640 Maple Ave
Saratoga Springs, NY 12866
Phone: 518-584-0166
Fax: 518-584-8529
Contract # 95012

Time 5-22-97/1700	Tech D. Pitman	Instruments / sn 2221 - C 89648
n / Purpose B-14 Area 11		Survey # 392 RWP # 06
ess Piping Survey - Heater + Duct		



Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
LAS	Heater			60	130							
Debris	Room Exhaust Channel			49	25							

		BKD	EFF	MDA
Scaler S/N 89648				
CT = 1 min	Alpha:	—	—	—
Tech D. Pitman	Beta:	34	0.20	

ents:
aples Field Counted Scaler Mode

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Radiological Consultants
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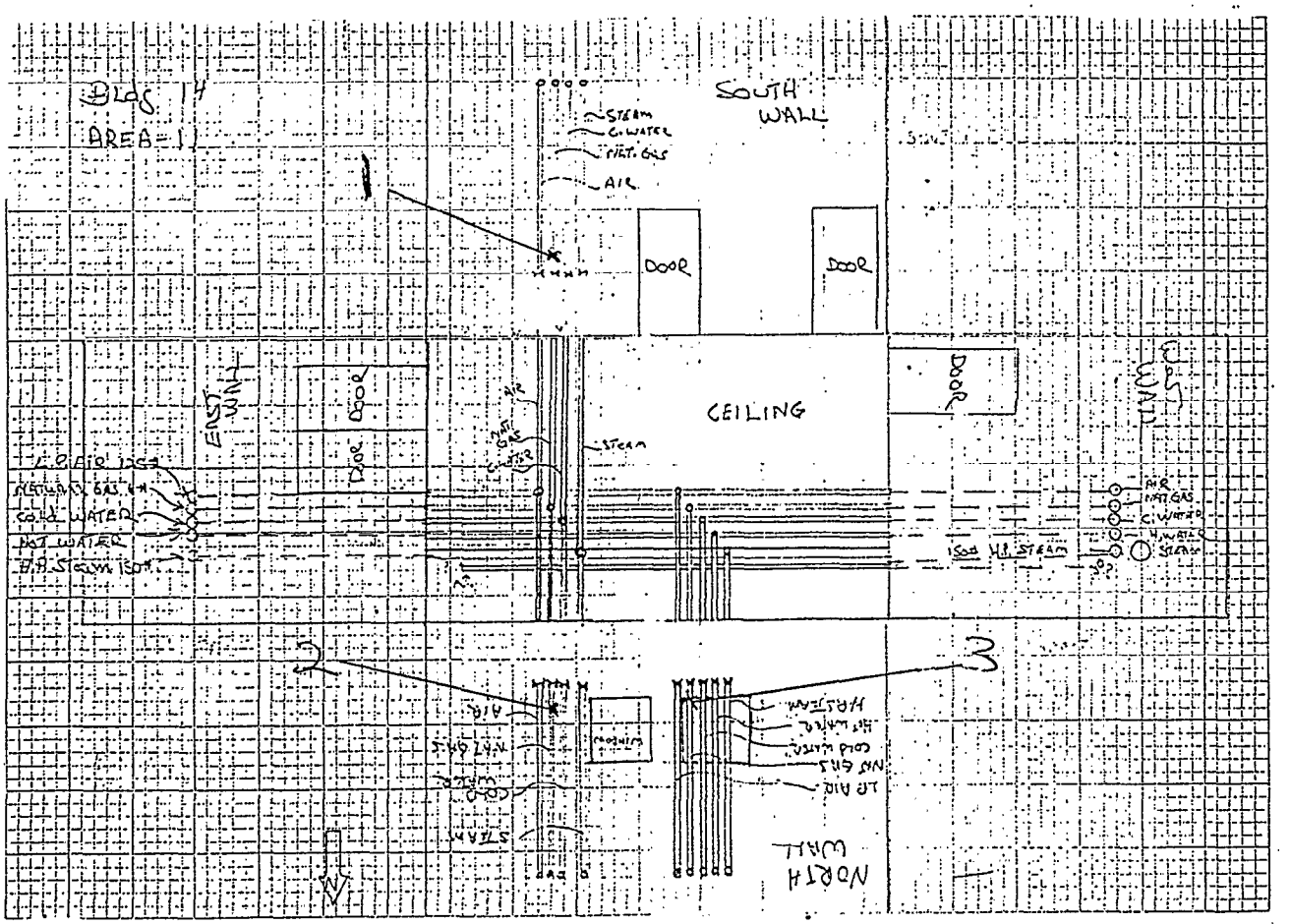
Fax: 518-584-8529
Contract # 95012

e / Time 5-27-97 / 1700	Tech D. PITMAN	Instruments / sn 2221 - C 89648
ation / Purpose B-14 A-11		Survey # 384 RWP # 06
rocess Pipe Survey - NATURAL GAS		



:	Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
	S	NATURAL GAS	0	-0.6	53	-21							
	S	NATURAL GAS	0	-0.6	60	3							
	S	NATURAL GAS	0	-0.6	56	-10							

			BKD	EFF	MDA
ments:	Scaler S/N 91234				
	CT # 1 min	Alpha:	0.26	0.31	15
	Tech D. PITMAN	Beta:	57	0.29	33

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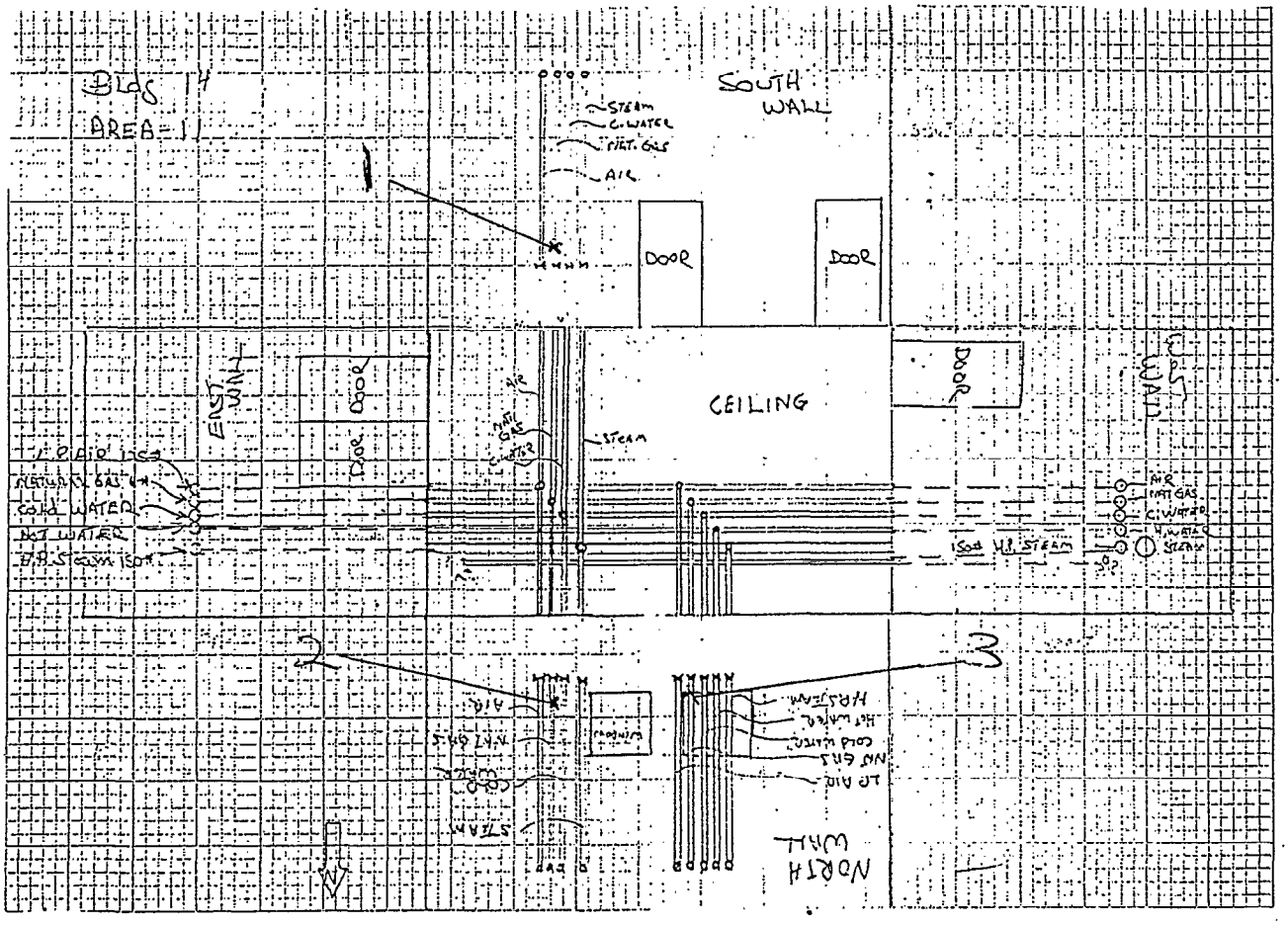
Fax: 518-584-8529
Contract # 95012

Date / Time 5-27-97 / 1700	Tech D. PITMAN	Instruments / sn 2221 - C 89648	
Location / Purpose B-14 A-11		Survey # 3841	RWP # 06
Process Pipe Survey - NATURAL GAS			



Loc	Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
1	S	NATURAL GAS	0	-0.6	53	-21							
2	S	NATURAL GAS	0	-0.6	60	3							
3	S	NATURAL GAS	0	-0.6	56	-10							

Comments:

Scalar S/N 91234	BKG	EFF	MDA
CT = 1 min	Alpha: 0.26	0.31	15
Tech D. PITMAN	Beta: 57	0.27	33

Review

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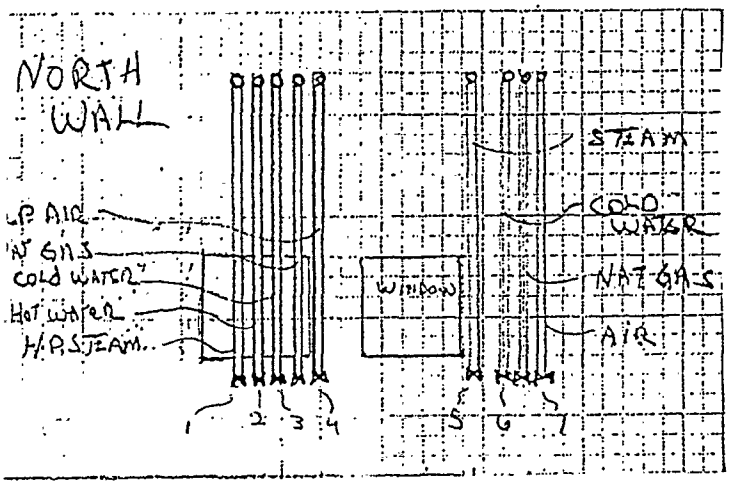
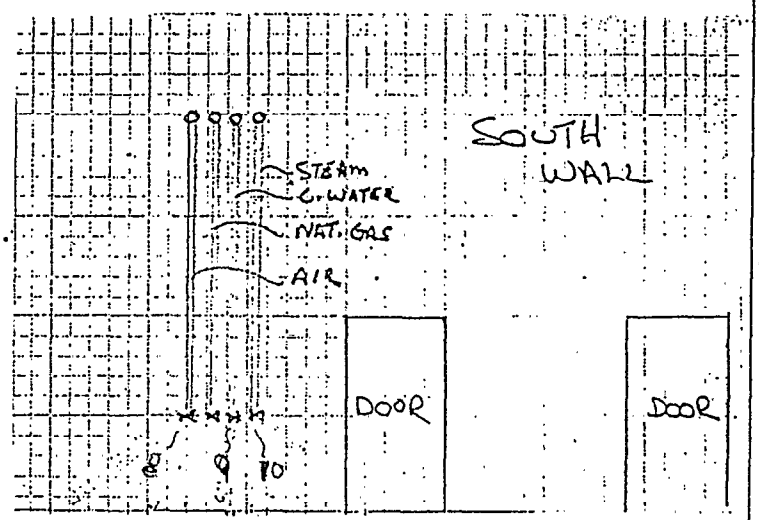
Contract # 95012

ate / Time 5-21-97/1700	Tech D. Pitman	Instruments / sn 2221-C 89648
ocation / Purpose B14, A11		Survey # 367 RWP # 06
rocess Piping Survey		





oc	Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
[illegible]	S	H.P. Steam	1	3	56	-14	8	S	L.P. AIR	0	-0.6	63	10
[illegible]	S	~~COLD~~ HOT WATER	0	-0.6	54	-21	9	S	COLD WATER	0	-0.6	56	-14
[illegible]	S	COLD WATER	0	-0.6	65	17	10	S	H.P. Steam	0	-0.6	53	-24
[illegible]	S	L.P. AIR	0	-0.6	65	17							
[illegible]	S	HP Steam	0	-0.6	56	-14							
[illegible]	S	COLD WATER	0	-0.6	60	0							
7	S	L.P. AIR	0	-0.6	62	7							

N/A

omments:
ALL C WATER, H WATER, HP Steam are Damp

		BKD	EFF	MDA
Scaler S/N 91234				
CT = 1 min	Alpha:	126/70 0.18	0.32	15
Tech D. Pitman	Beta:	[illegible]	0.29	134

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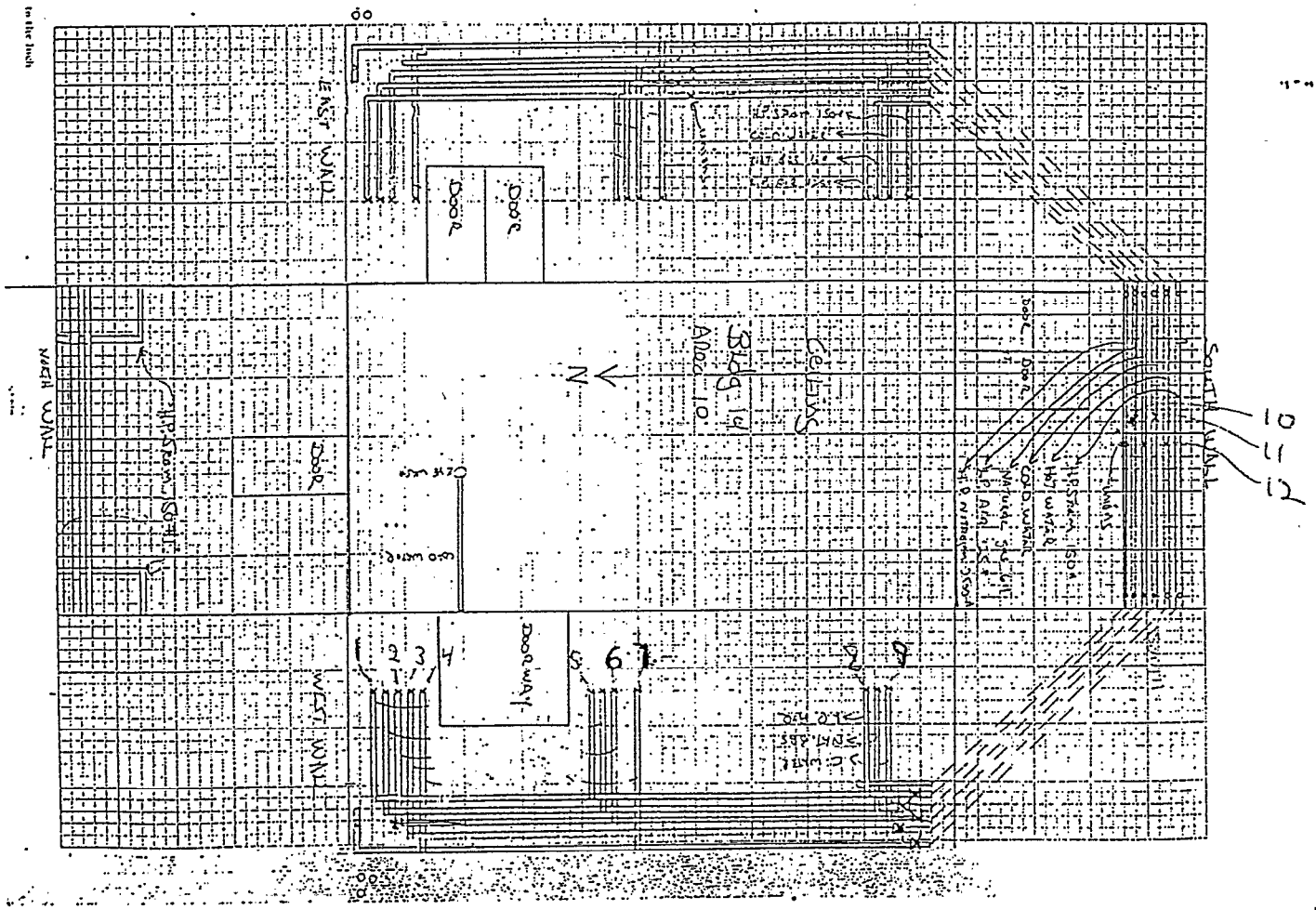
Contract # 95012

/Time 5-21-97 / 1700	Tech D. Pitman	Instruments / sn 2221-C 89648	
ion / Purpose B14, A-10		Survey # 366	RWP # 06
ccess Piping Survey			



N ←

Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
S	L.P. AIR	0	-0.6	68	28	8	S	L.P. AIR	0	-0.6	61	3
S	C. WATER	0	-0.6	64	14	9	S	C. WATER	1	3	71	55
S	H. WATER	0	-0.6	71	55	10	S	L.P. AIR	0	-0.6	52	-28
S	H.P. STEAM	0	-0.6	49	-38	11	S	C. WATER	0	-0.6	52	-28
S	L.P. AIR	1	3	61	3	12	S	H. WATER	0	-0.6	61	3
S	C. WATER	0	-0.6	52	-28							
S	H.P. STEAM	0	-0.6	50	-37							

			BKD	EFF	MDA
ments:	Scaler S/N 91234				
C. WATER, H. WATER, H.P. STEAM are Damp	CT = 1 min	Alpha:	0.15	0.52	15
	Tech D. Pitman	Beta:	60	0.29	134

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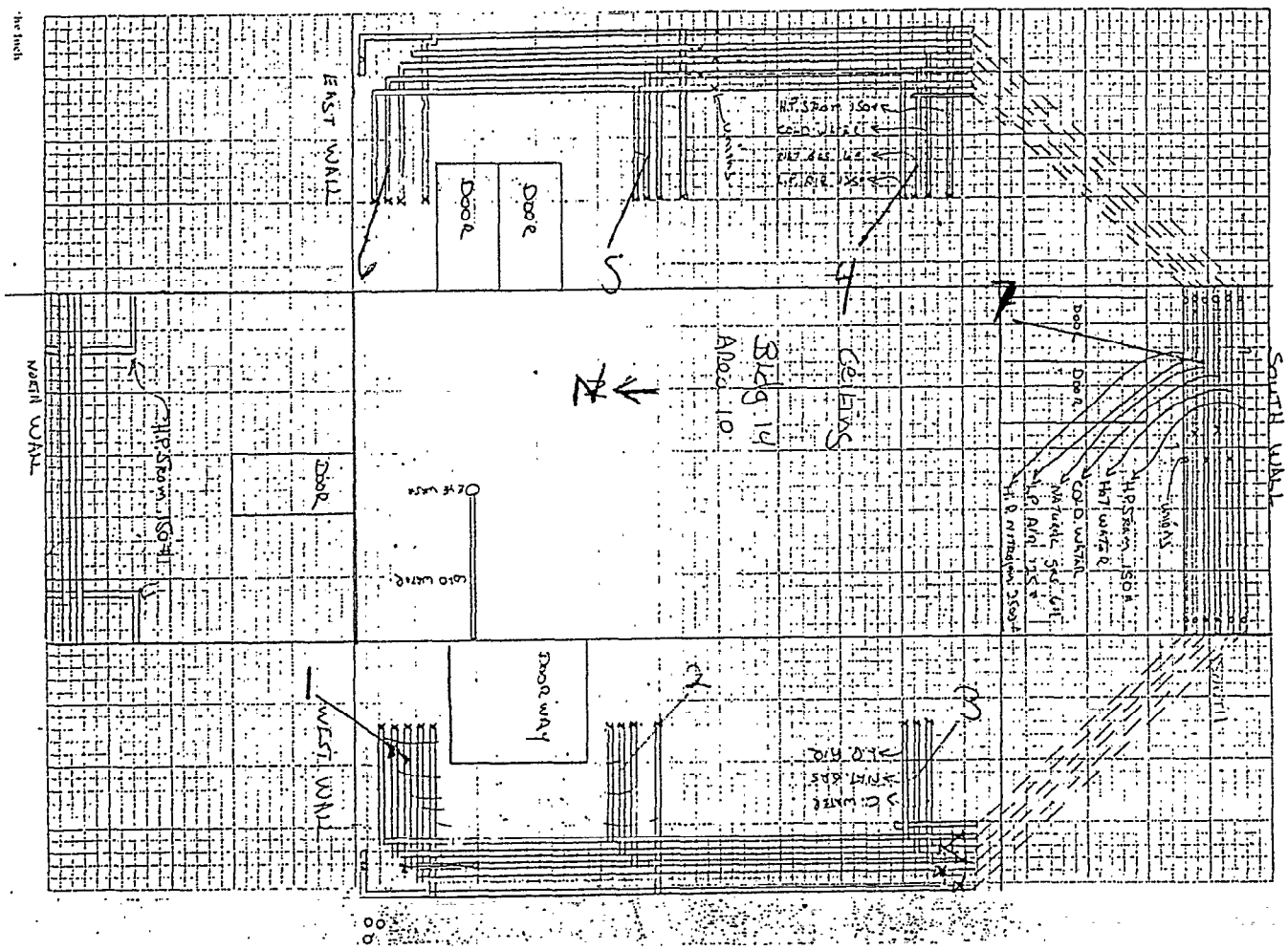
Fax: 518-584-8529
Contract # 95012

e / Time 5-27-97 / 1700	Tech D. PITMAN	Instruments / sn 2221-C 89648	
ation / Purpose B-14 A10		Survey # 387	RWP # 06
rocess Piping Survey - NAT. GAS			



Loc	Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
	S	NAT GAS	0	-0.6	68	31							
	S		0	-0.6	68	31							
	S		0	-0.6	59	0							
	S		0	-0.6	58	-3							
	S		0	-0.6	62	10							
	S		0	-0.6	66	24							
	S	NAT GAS	3	9	68	31							

mments:

		BKD	EFF	MDA
Scaler S/N 91234				
CT = 1 MIN	Alpha:	142/70 0.20	0.31	15
Tech D. Pitman	Beta:	91249/700 59	0.29	133

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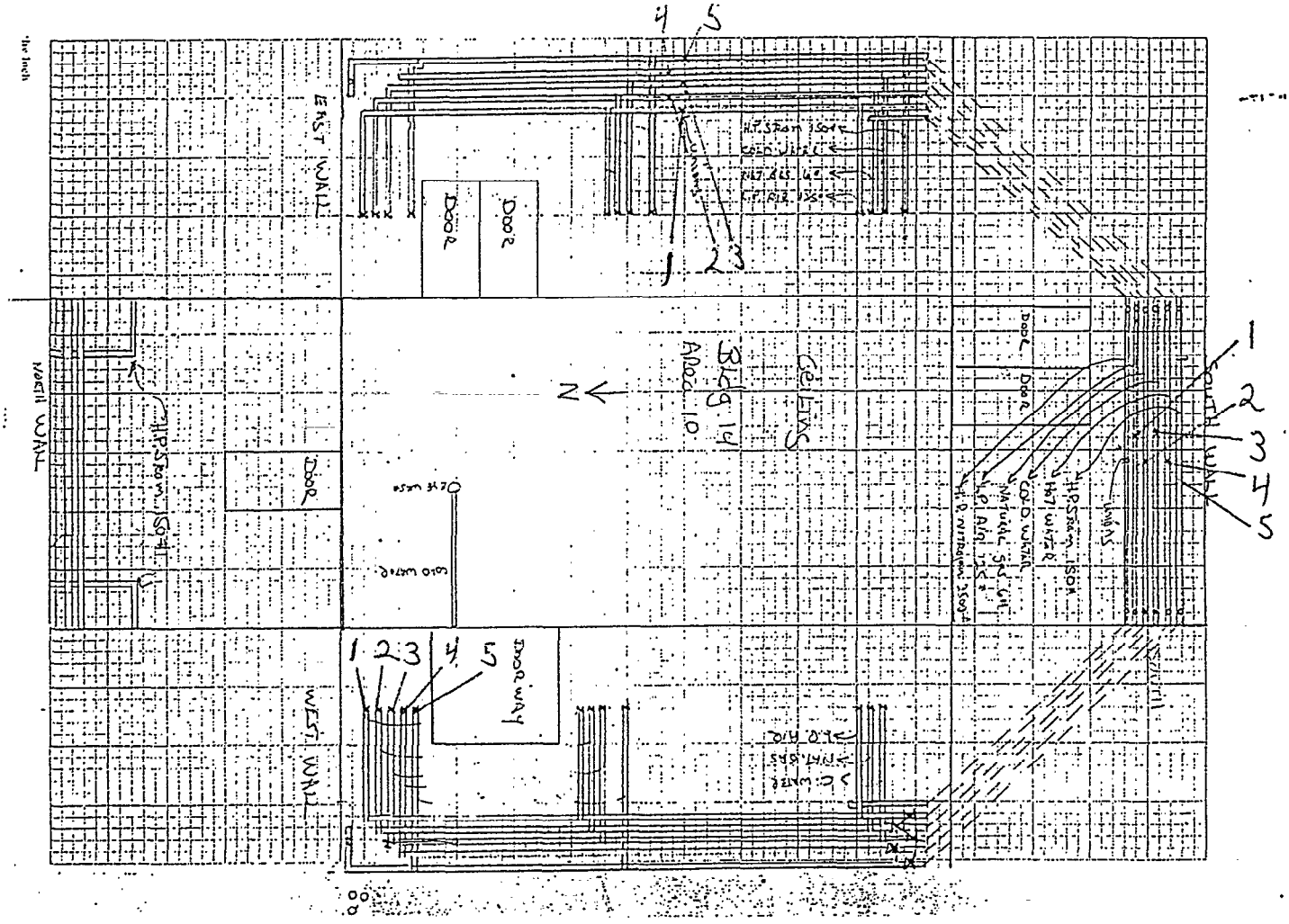
Fax: 518-584-8529
Contract # 95012

/ Time 5-21-97 / 1700	Tech D. PITMAN	Instruments / sn 2221-C 89648
tion / Purpose Bldg 14 Area 10		Survey # 391 RWP # C6
ross Piping Survey L.P. AIR C. WATER H.P. STEAM NAT GAS H. WATER		



Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
LAS	L.P. AIR			43	45							
LAS	NAT GAS			37	15							
LAS	C. WATER			37	15							
LAS	H WATER			29	-25							
LAS	H.P. STEAM			35	5							

ments: field	Scaler S/N 89648	BKD	EFF	MDA
mples Counted: Scaler mode	CT = 1 mm Alpha:	—	—	—
	Tech D. Pitman Beta:	34	0.20	

Review [signature]

Bldg 14 AREA 10

SYSTEM	WALL	Grid	Survey #	Direct Probe BKgd	Direct Probe CPm	Direct Probe DPm	100cm² SWIPE CPm α	100cm² SWIPE CPm β γ	100cm² SWIPE DPm α	100cm² SWIPE DPm β γ	INTERNAL PIPE SWAB CPm α	INTERNAL PIPE SWAB CPm β γ	INTERNAL PIPE SWAB DPm α	INTERNAL PIPE SWAB DPm β γ	
Heater-Condensate Strainer	C	D-10	332	66	61	-154	0	61	-1	7					
Heater-Condensate Strainer	C	D-10	390	66	61	-154					-	31	-	-15	
Heater-Condensate Strainer	C	D-10	390	66	65	-31					-	41	-	35	Debris
Heater Intake Duct	C	F-9	332	66	63	-92	0	67	-1	28					
Heater-Exhaust Duct	C	F-9		66	52	-430	1	57	3	-7					
Room Exhaust Duct	W	L-7	377	74	60	-430	0	64	-1	14					
Room Exhaust Duct	W	L-7	390	74	60	-430					-	62	-	140	Debris
Room Exhaust Duct	W	G-7	377	74	60	-430	0	53	-1	-25					
Room Exhaust Duct	W	G-7	390	74	60	-430					-	97	-	315	Debris
Room Exhaust Duct	W	E-7	377	74	70	-123	0	59	-1	-4					
Room Exhaust Duct	W	E-7	390	74	70	-123					-	71	-	135	Debris
Room Exhaust Duct	E	E-12	377	74	110	1106	0	56	-1	-14					
Room Exhaust Duct	E	E-12	390	74	110	1106					-	40	-	30	Debris
Room Exhaust Duct	E	G-12	377	74	100	799	1	51	3	-32					
Room Exhaust Duct	E	G-12	390	74	100	799					-	54	-	105	Debris
Room Exhaust Duct	N	K-12	377	74	80	184	1	55	3	-18					
Room Exhaust Duct	N	K-12	390	74	80	184					-	67	-	165	Debris
Room Exhaust Duct	C	B-10	377	74	80	184	0	65	-1	18					

David Inch

[LOGO] LBERT ASSOCIATES INC
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IDM Environmental
Bldg. 14, Praxair Site
Tonawanda, NY 14151

Radiological Survey Form

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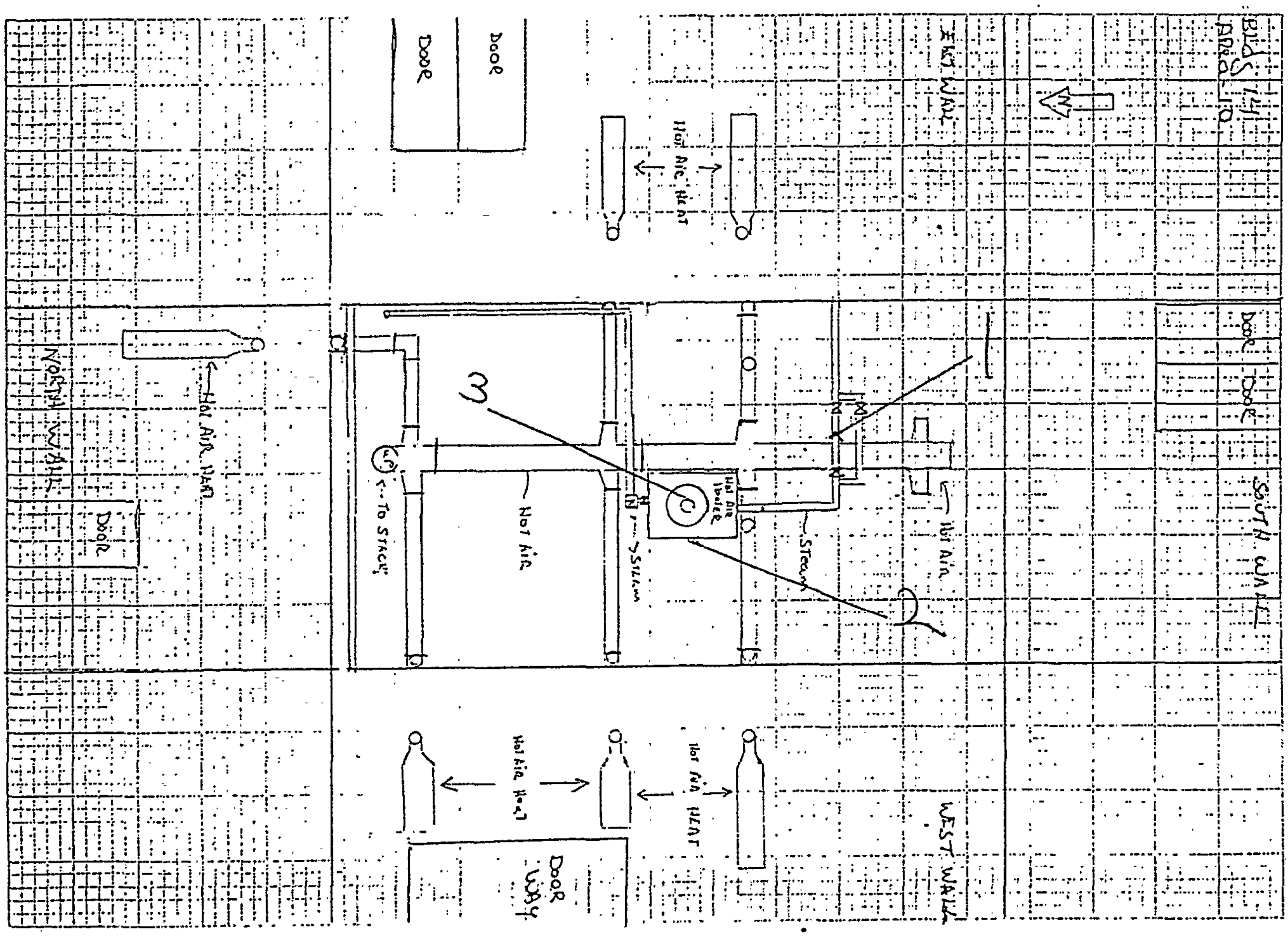
Radiological Consultants
640 Maple Ave
Saratoga Springs, NY 12866
Phone: 518-584-0166
Fax: 518-584-8529
Contract # 95012

/Time 5-22-97/1700	Tech D. Pitman	Instruments / sn 2221 - C 89648	
tion / Purpose B-14 A-10		Survey # 382	RWP # 06
coss Piping Survey - Heater			



Loc	Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
	S	Heater Strainer	0	-0.6	61	7							
	S	Heater Intake Duct	0	-0.6	67	28							
	S	Heater Exhaust Duct	1	2.6	57	-7							

mments:

		BKD	EFF	MDA
Scaler S/N 91234				
CT = 1 min	Alpha:	14?/? 0.20	0.31	15
Tech D. Pitman	Beta:	4,249/? 59	0.29	133

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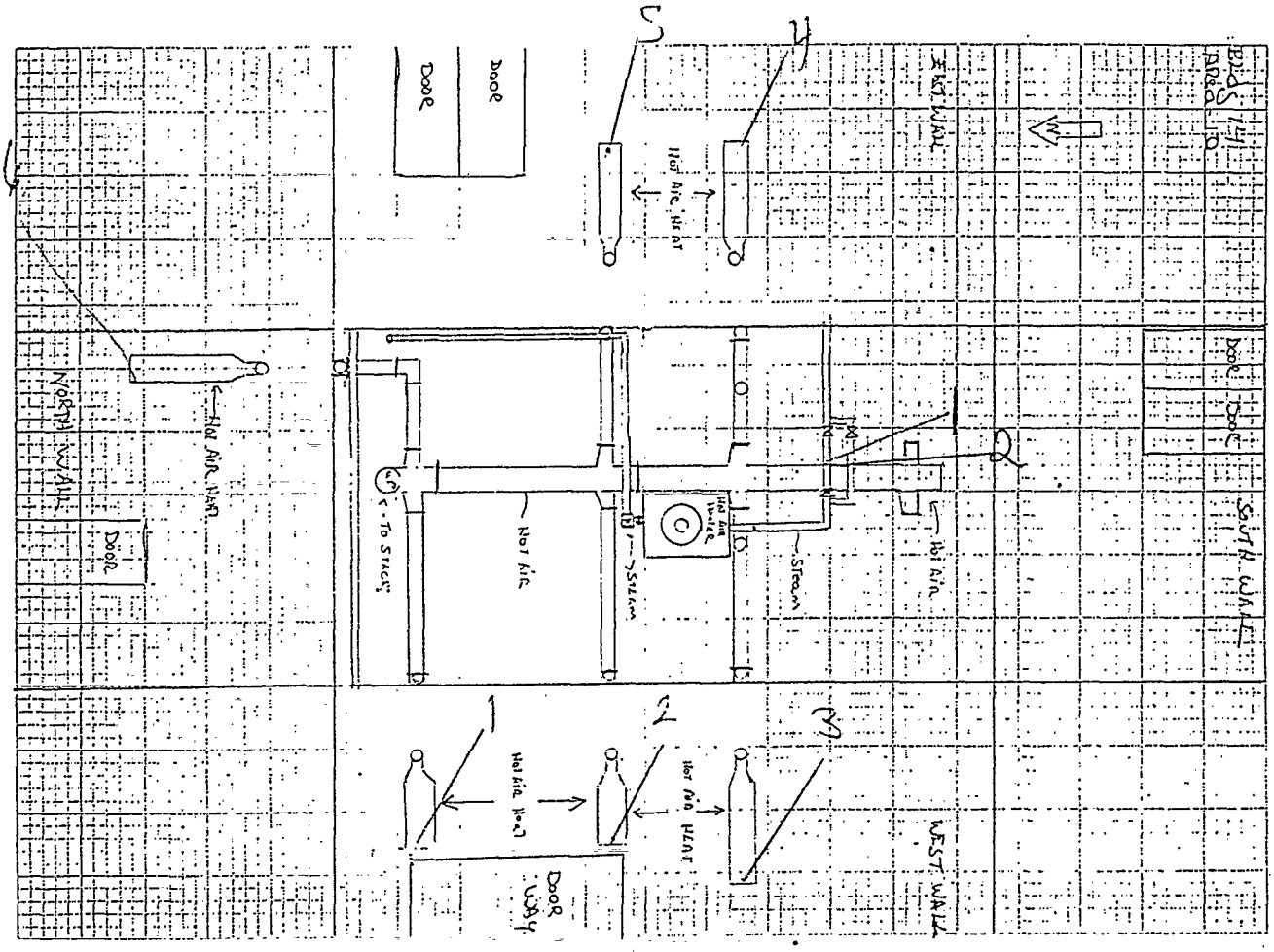
Contract # 95012

/Time 5-22-97 /1700	Tech D. Pitman	Instruments / sn 2221-C 89648	
tion / Purpose Bldg 14 Area 10		Survey # 390	RWP # 06
ocess Piping Survey · Duct Debris + Condensate Swipe			



Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
LAS	Heater - Strainer			31	-15	8	Debris LAS	Exhaust Duct			67	165
Debris	Heater - Strainer			41	35							
Debris LAS	Exhaust Duct			62	140							
Debris LAS				97	315							
Debris LAS				71	185							
Debris LAS				40	30							
Debris LAS				54	100							

ments:	Scaler S/N 89648	BKD	EFF	MDA
mpter counted - Scaler made - Field counted	CT = 1 min Alpha:			
	Tech D Pitman Beta:	34	0.20	

Review [signature]

Bldg 14 AREA CORRIDOR

SYSTEM	WALL	Grid	Survey #	Direct Probe			100cm² SWIPE				INTERNAL PIPE SWAB			
				BKgd	CPM	DPM	CPM		DPM		CPM		DPM	
							α	βγ	α	βγ	α	βγ	α	βγ
Low Pressure Air	C	M-12	353	67	49	-553	1	70	3	38				
Low Pressure Air	C	M-12	393	67	49	-553					-	49	-	75

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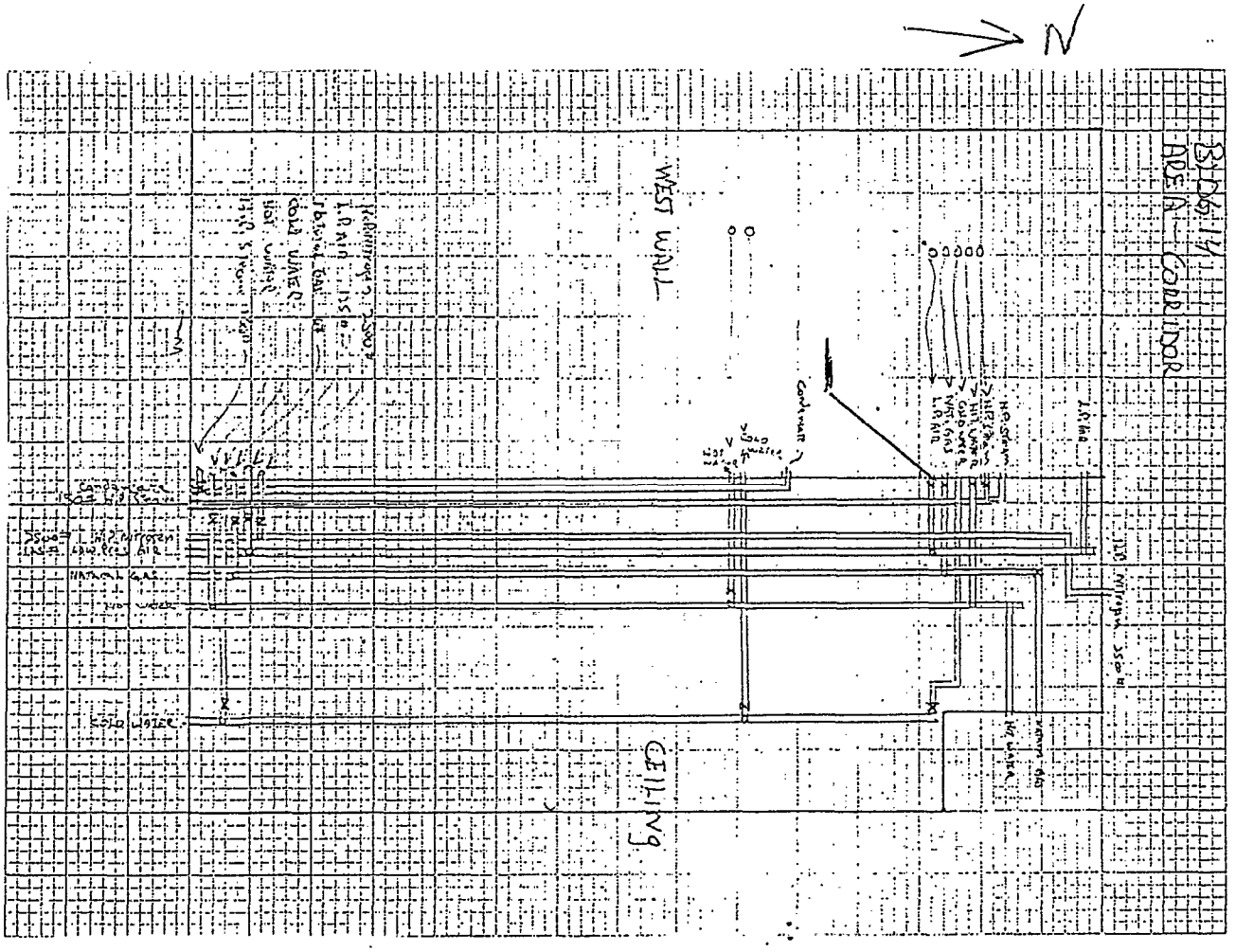
Fax: 518-584-8529
Contract # 95012

/ Time 5-22-97 / 1700	Tech D. Pitman	Instruments / sn 2221-C 89648
ion / Purpose 3-14 corridor		Survey # 393 RWP # 06
esc Piping Survey - Low Pressure Air		



Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
LAS	L.P. Air			49	75							

			BKD	EFF	MDA
ments:	Scaler S/N 89648				
~~mples counted~~	CT = 1 min	Alpha:	—	—	—
field counted Scaler mode	Tech D. Pitman	Beta:	34	0.20	

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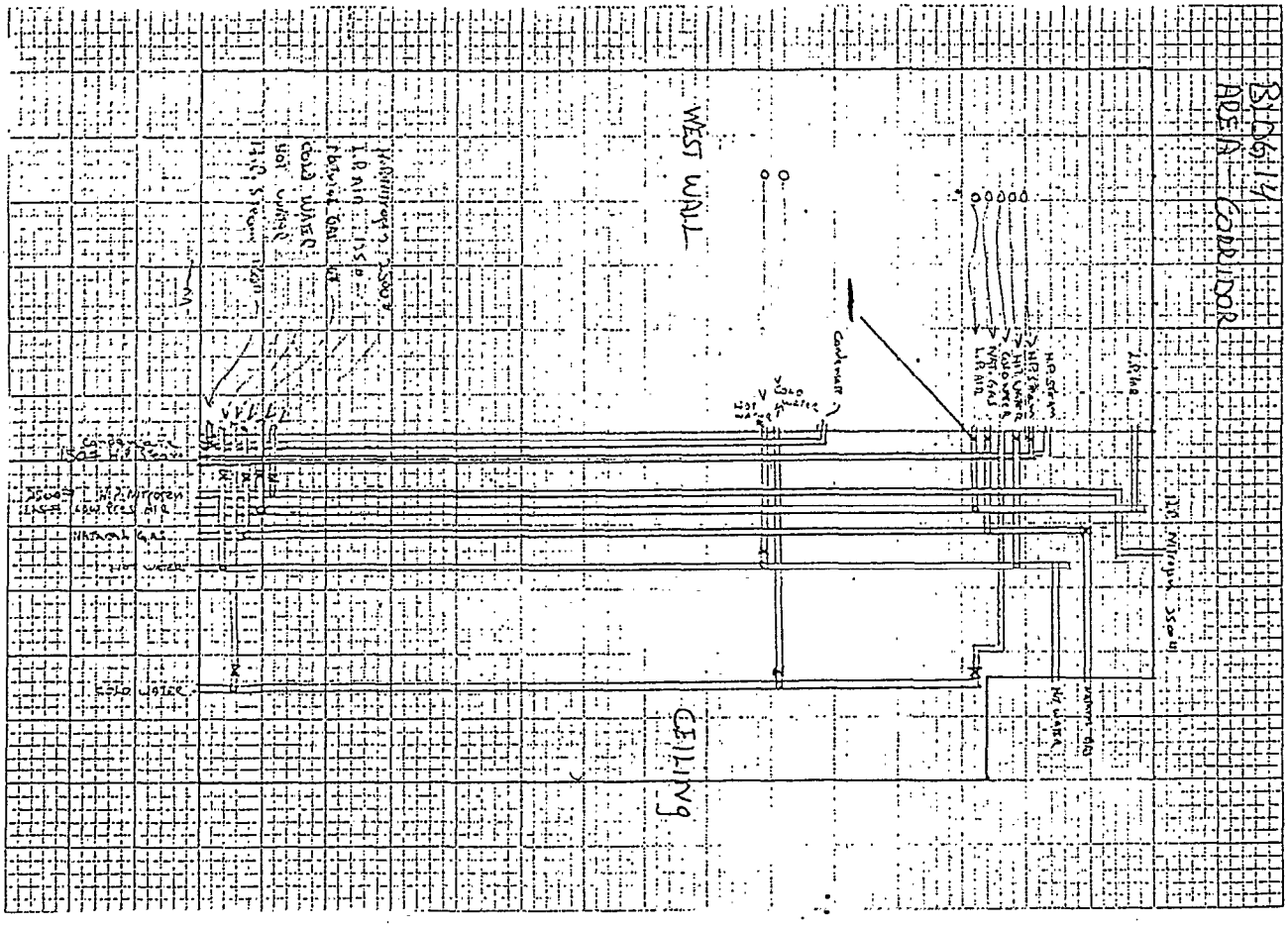
Fax: 518-584-8529
Contract # 95012

Date / Time 5-22-97/1500	Tech D. PITMAN	Instruments / sn 2221 - C 89648	
Location / Purpose B-14 CORRIDOR		Survey # 383	RWP # 06
Process Piping Survey - Low Pressure Air			



Loc	Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
	S	Low Pressure Air	1	2.6	70	38							

Comments:

		BKD	EFF	MDA
Scaler S/N 91234				
CT = 1 min	Alpha: 142/20	0.22	0.31	15
Tech D. PITMAN	Beta: 41249/20	59	0.29	133

Review

SYSTEM	WALL	Grid	Survey #	Direct Probe			100 Cm² SWIPE				INTERNAL PIPE SWAB			
				BKgd	CPm	DPm	CPm		DPm		CPm		DPm	
							α	βγ	α	βγ	α	βγ	α	βγ
LOW PRESSURE AIR	C	DD-M	356	59	46	-399	0	47	-1	-41				
LOW PRESSURE AIR	C	DD-M	359	59	45	-430					-	38	-	20
NATURAL GAS	C	DD-M	356	59	49	-307	1	68	3	31				
NATURAL GAS	C	DD-M	359	59	45	-430					-	41	-	35
COLD WATER	C	DD-M	356	59	48	-338	0	39	-1	-69				
COLD WATER	C	DD-M	359	59	46	-399					-	56	-	110
HOT WATER	C	DD-M	356	59	46	-399	0	67	-1	28				
HOT WATER	C	DD-M	359	59	47	-369					-	40	-	30

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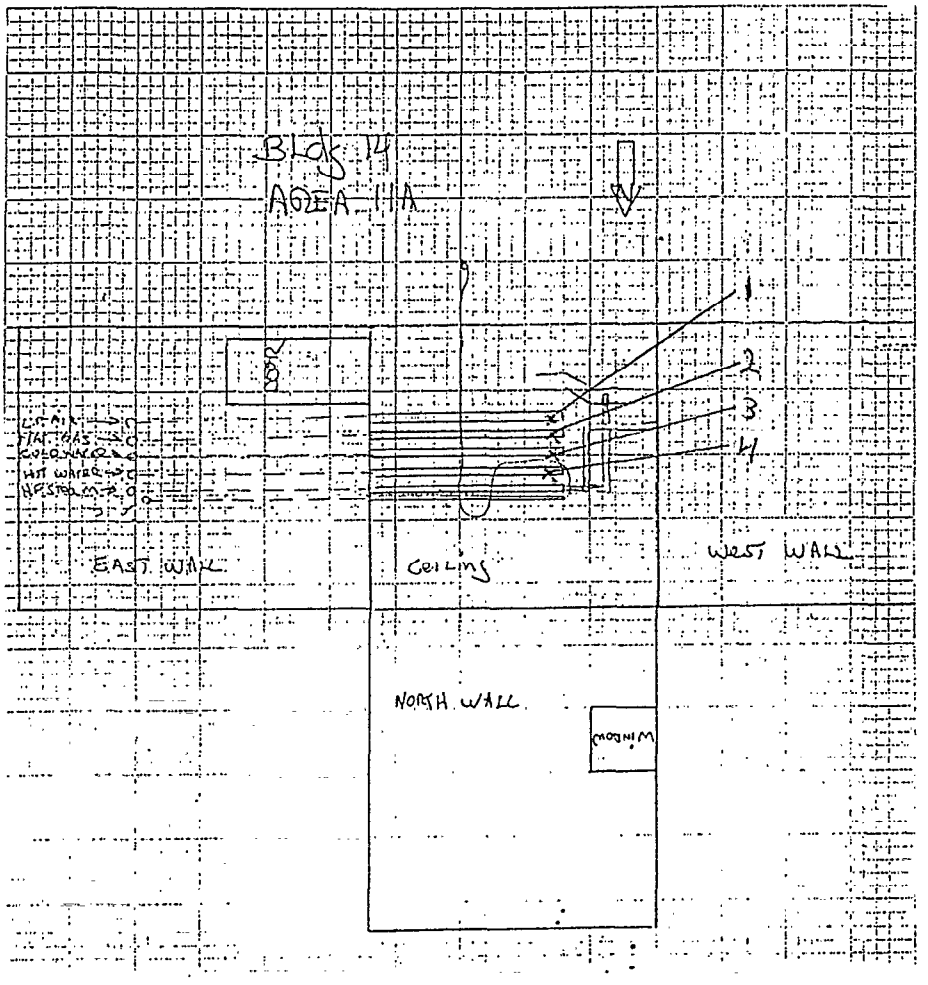
Contract # 95012

Date / Time 5-22-97 / 1700	Tech D. Pitman	Instruments / sn 2221-C 89648
Location / Purpose B-14 Area 11A		Survey # 3856 RWP # 06
Process Piping Survey		



Loc	Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
1	S	Low Pressure Air	0	-0.6	47	-41							
2	S	Natural Gas	1	2.6	68	31							
3	S	Cold Water	0	-0.6	39	-69							
4	S	Hot Water	0	-0.6	67	28							

Comments:

Scaler S/N 91234		BKD	EFF	MDA
CT = 1 min	Alpha:	192/20 0.20	0.31	15
Tech D. Pitman	Beta:	91249/20 59	0.29	133

Review

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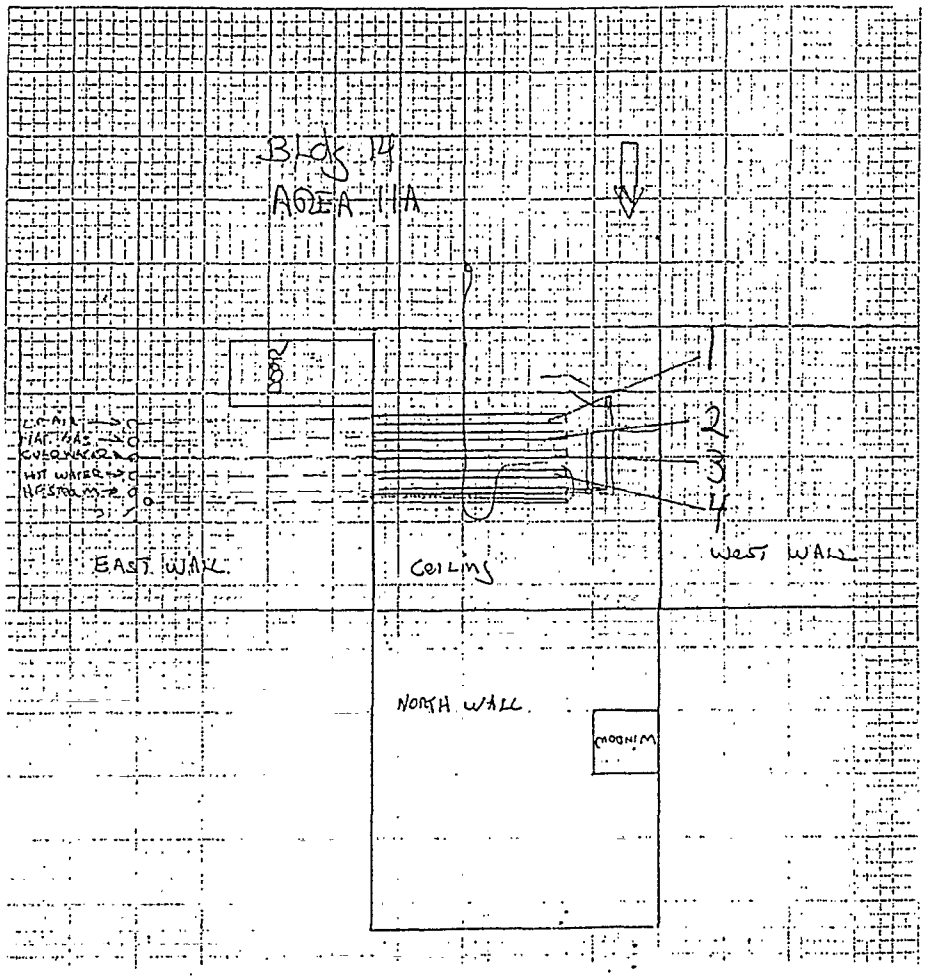
Contract # 95012

Date / Time 5-22-97 / 1700	Tech D. Pitman	Instruments / sn 2221-C 89648
Location / Purpose Bldg 14 Area 11A		Survey # 389 RWP # 06
Process Piping Survey L.P. AIR NAT GAS C. WATER H. WATER		



Loc	Type	Description	Gross	A DPM	Gross	Beta DPM	Loc	Type	Description	Gross	A DPM	Gross	Beta DPM
1	LAS	LP. AIR			38	20							
2	LAS	NAT GAS			41	35							
3	LAS	C. WATER			56	110							
4	LAS	H. WATER.			40	30							

Comments: Samples Field Counted · Scaler mode

		BKD	EFF	MDA
Scaler S/N 89648				
CT = 1 MIN	Alpha:	—	—	—
Tech D. Pitman	Beta:	34	0.20	

Review [signature]