

UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION IV 612 EAST LAMAR BLVD, SUITE 400 ARLINGTON, TEXAS 76011-4125

August 1, 2008

TO:

Docket File 040-03400

THROUGH:

Jack E. Whitten, Chief

Nuclear Materials Safety Branch B

FROM:

Robert Evans, CHP, PE, Senior Health Physicist

Nuclear Materials Safety Branch B

SUBJECT:

FIELD NOTES FOR NRC INSPECTION REPORT 040-03400/08-001

An NRC inspection was conducted on May 28-June 4, 2008, at the Salmon River Uranium Development (SRUD) site located near North Fork, Idaho. Enclosed to this Memorandum are the original field notes that were collected during the inspection. These notes were used in the development of NRC Inspection Report No. 040-03400/08-001.

The field notes include the daily survey instrument functionality checks, daily instrument background checks, soil sampling data sheets, outdoor exposure rate measurements, equipment release logs, indoor surface contamination survey measurements, and outdoor surface contamination survey measurements. Included in the notes are maps that were sketched during the inspection to provide approximate locations of selected sampling points, including location of soil samples.

Docket No.: 040-03400

License Nos.: P-4001 (expired), R-230 (expired)

Enclosure:

NRC Inspection 040-03400/08-001 Field Notes

NRC#211236-CDD 7/10/08

Alpha/Beta Portable Survey Instrument Daily Log

Ludlum Model 43-89 probe Serial Number Ludlum Model 2224 detector Serial Number

44-9 Probe I Ludium Model 3

Cal. Due Date:

Date				
Response Check	ok	OK	oK	
Battery Check	OK	ok	0/4	
Date	5/30/08	6/2/08	30cpm 6/3/03	
 Backgrowd	20cpm	Horba	30cpm	

Response Check								
 								
Battery Check								
Date								

Response chell continette WITH THEVIAM OR R3 avand 6/6/08

PIC/MICRO-REM METER TRACKING FORM

INSTRUMENT # 015544 CALIBRATION DATE 14 Febo8 RE-CALIBRATION DUE DATE 14 Feb 09

1	Checkout	Background	Source Check #	ROCK	Battery Check	Performed	Comments
	Date	(μR/hr)	Gross μR/hr	Net µR/hr*	% Charge**	by:	(see reverse)
	5/30/08	25	130	105	OK	RJE	Initial Operational Check
1	6/2/08	24	130	106	ok	RJE	
2	6/3/08	20	120	100	0/2	RJE	
3	6/41/08	20	400	380	6K	RSE	Different Rock
4							
5							
6							
7							
8							
9							
10					·		
11				!		. 3	
12				·			
13							
14				1			

*	Response limits	to	$\mu R/hr$ (VIET/
	response minis	tU	$\mu_{10}m$ (1112 I J.

** Response mut be > 85% for the 300V battery.

NOTE: This form is kept in the ESSAP instrument room files.

RJWard 6/6/08

Figure B-5

PIC/MICRO-REM METER TRACKING FORM

INSTRUMENT # 015575 CALIBRATION DATE 14 F1508 RE-CALIBRATION DUE DATE 14F8809

	Checkout	Background	Source Check #		Battery Check	Performed	Comments
	Date	(µR/hr)	Gross µR/hr	Net µR/hr*	% Charge**	by:	(see reverse)
							Initial Operational Check
1	6/z/08 6/3/08	25	135	/10	σK	RJE RJE	
2	6/3/08	20	130	110	ok	RSE	
3							
4							
5							
6							
7							
8							
9						- N	
10							
11							
12							
13							
14							

*	Response limits	to	µR/hr	(NET).

** Response mut be > 85% for the 300V battery.

NOTE: This form is kept in the ESSAP instrument room files.

Figure B-5

RJ Ward 6/6/08 NOC # 063473 CDD 14 Jan 09

INSTRUMENT OPERATIONAL CHECK OUT SITE

	INSTRUMENT TO DETECTOR TYPE VOLTAGE A E B	Cui	IIre E600 380 A B Es 25% Es 50%	INSTRUMEN DETECTOR # TOTAL EFFICIENCY THRESHOLD	8723	
	Check Out Date/Time	Background (c/m)	*Source Type: ID #: (c/m)	**Source Type: ID #: (c/m)	Checked Out By:	Comments (see reverse)
						ORAU Data
1	6/2/08	全 22 20 21	Av6= 21			concrete
2	6/2/08	373 367 366	Ava = 369.6		·	concrete
3	6/3/08	76 15 27	AVG = 22.6			
4	6/3/08	348 342 336	Ava=342	i i		
5						
6						
7						
8	·					
9						
10						
11	,					
12						
13						
Ca	libration Backgrou	nd Response:	2 σ limits	to c/m,	3 σ limitst	to c/m
Sit	e Redetermination	:	2 σ limits	to c/m,	3 σ limits	to c/m
Sit	e/Area Specific Ba	ckground Response:	See ba	ck of form		
	urce Response Lim		,	to c/m		_
Sc	ource Response Lin	nits	*************************************	to c/m	Pre-survey Data Revie	:wed
					Post-survey Data Revi	ewed
				•	Date	

EXPOSURE RATE MEASUREMENTS AND SOIL SAMPLES

	DETECTOR	401	
PIC/micro-rem meter	INSTRUMENT	40/4m/9 Micro-2 32055	Cal. 14 the of Co 15544)
PIC/micro-	TYPE	Ludlum 19	Cal. HTCOS
SURVEYOR(S)	K. CONWAY	R EVANS	END TIME
SRUD		614108	START TIME <u>0735</u>
SITE	AREA	DATE	STAR

BACK-GROUND 20 uR/L

SOIL SAMPLE	SOIL SAMPLE	田 田	SOIL		WRC- Y		MRC-5	
NRC-1	NAC	7	SAMPLE NR 6-3	16-3	SOIL SAMPLE	(T)	SOIL SAMPLE	(1)
LOCATION DRAID LINE	LOCATION DAY	LOCATION (Nutrocal)	LOCATION N. Of Tra	LOCATION LOCATION (Band) Site Acces (R.)	LOCATION SITE Acces	(M)	LOCATION SEOFBUILD	21
SCINTILLATION Repm L. A/r.	SCINTII	SCINTILLATION Kcpm メルイル	SCINTIL	SCINTILLATION Kepm _{jul} lsh	SCINȚIL	SCINTILLATION Kcpm wilh	SCINTILLATION Kspm _{Av I} A	KSPM WASh
1 METER CONTACT	1 METER	CONTACT	1 METER	CONTACT	1 METER	CONTACT	1 METER	CONTACT
30 nldh 50 nR/h	7 40	70 .	30	30	30	30	30	30
READINGS So, L HR/hr Sample		READINGS µR/hr	READ µR	READINGS µR/hr	REAU	READINGS µR/hr	READINGS µR/hr	ADINGS μR/hr
					-			
MEAN:	MEAN:		MEAN:		MEAN:	,	MEAN:	
REMARKS: Bowleyn - SCribe	- scribe)	08/1 DATE REVIE	DATE REVIEWED $6/4/c8$		LCULATIONS	CALCULATIONS REVIEW ED 6/6/68	35/0/08_0
			DATE		/Q	DATE	4	Renow

Figure B-15

9 2 g

EXPOSURE RATE MEASUREMENTS AND SOIL SAMPLES

		DETECTOR	**************************************	445
	PIC/micro-rem meter	INSTRUMENT	Mitchel 2055	NRC# 015544
	PIC/micro-	TYPE	Ludbun, 9	C.L. OYFELOS
SITR VEVOR(S)	V, WATK, JS	K. Condulay	R. EVANJS	END TIME
	SITE SRUD	AREA	DATE 6/4/08	START TIME 0735

BACK-GROUND

20 MR/L

							 		-3
-/O	LOCATION LOCATION South-obline thereo long An SWO Tr a llex	SCINTILLATION Keptil / ルレル	CONTACT	50	READINGS µR/hr				Chilos Rollman
NAC-10 SOIL SAMPLE	affication	SCINTII Ko	1 METER	30	REAI µR			MEAN:	REVIEWED
NRC 9	ent Acesso Acess	SCINTILLATION Keptin M/K	CONTACT	30	READINGS µR/hr				CALCULATIONS REVIEWED
N/L SOIL SAMPLE	LOCATION South-of M.	SCINTIL	1 METER	30	REAI µR			MEAN:	
RCF	tegt	SCINTILLATION Kspm MR/L	CONTACT	ilO	READINGS µR/hr				DATE REVIEWED
SOIL SAMPLE $1/2$	LOCATION West of Lang	SCINTIL Kg	1 METER	So	READ µR			MEAN:	DATE REVIE DATE
E	LOCATION Stofe Des LOCATION SW CONTROL WAS BOX	SCINTILLATION Keptin ju. R/h	CONTACT	50	READINGS µR/hr				
SOIL SAMPLE	LOCATION SW com	SCINTIL	1 METER	40	READ µR			MEAN:	
m e	A Bld	ン SCINTILLATION Kefim ルド/h	CONTACT	30	READINGS µR/hr				V Bulatin
SOIL SAMPLE ///////	LOCATION & Bld	SCINTIL	1 METER	30	REAU µR			MEAN:	REMARKS OF

Figure B-15

EXPOSURE RATE MEASUREMENTS AND SOIL SAMPLES

SURVEYOR(S	17	SURVEYOR(S) WATK, LS	1	PIC/micro-rem meter	em meter				
K. C	6 11	K. Conway	ı	TYPE	INSTRUMENT		DETECTOR B	BACK-GROUND	
R. EUROLS	2	Salas	I	Cualbon 19	Micro-R medar		4,~	20 m 2/h	
END TIME			-						
SOIL SAMPLE	пj		SOIL		,,	111701	~	NRC-1X	
NRC-12	1 -	7	SAMPLE NRC 13	c 13	かんごろ SOIL SAMPLE	バス C./ ユ E	SOIL SAMPLE	PLE	
LOCATION Lary	-	Lary Yellow Entainer	LOCATION Sovet cut it forth that Tauk.	South eith t	LOCATION BAIRD	1841RD	LOCATIO	LOCATION 75° Decline	<u> </u>
1 to 1 E	1 to 1 E)z <	SCINTILLATION KOPITY (R)	Shame Shame TILLATION Kopfi.u.(R//	SCINTIL	Survection TILLATION Kepm 4 M	SCIN'	SCINTILLATION Kepm WA	
1 METER CONTACT	CONT	ACT	1 METER	CONTACT	1 METER	CONTACT	1 METER	CONTACT	
90 170	17.0)	70	180	09	180	120	2.80	,
READINGS uR/hr	JINGS 7/br		REAL	READINGS 11R/hr	REAL	READINGS 118/hr	RE	READINGS 11R/hr	
									. ,
									
									т
	L								_

Figure B-15

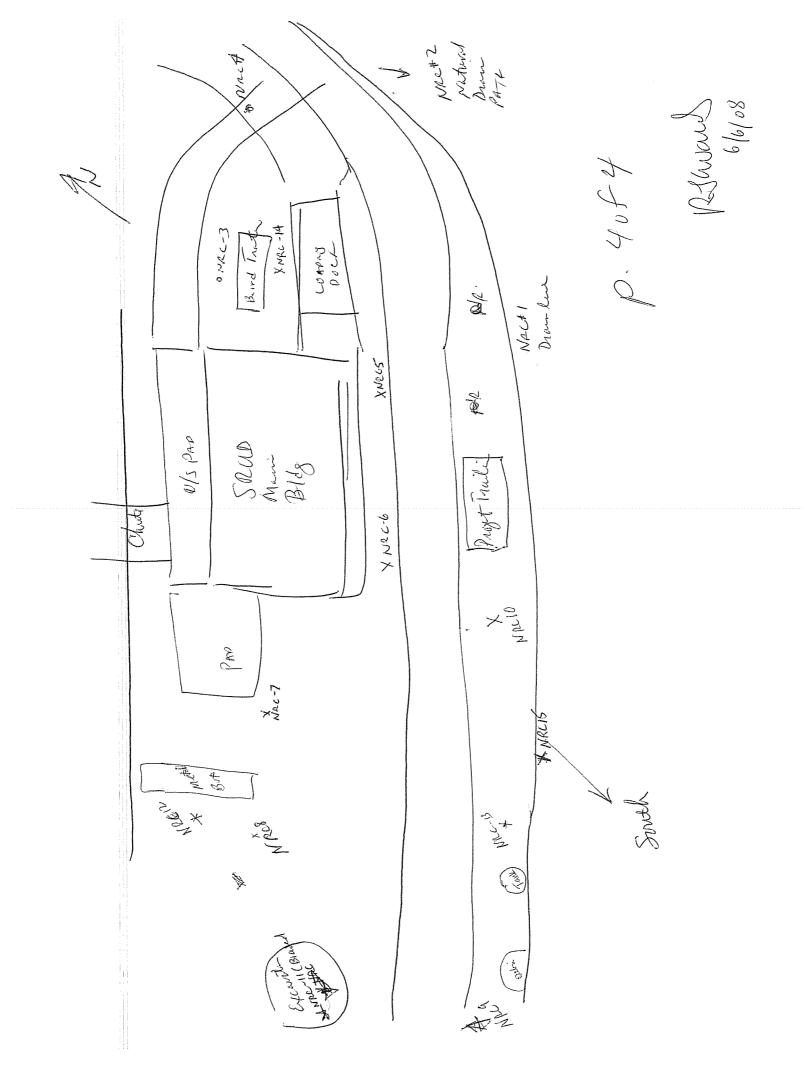
/ ひむし / CALCULATIONS REVIEW ED _

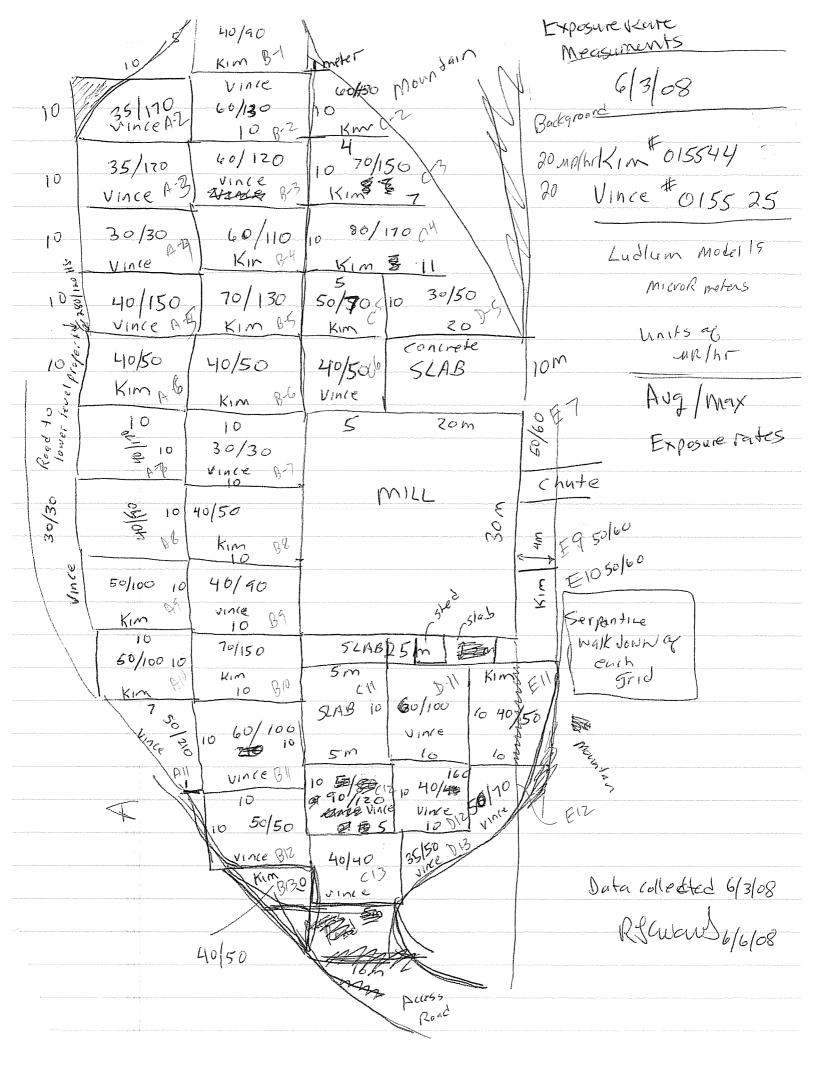
DATE REVIEWED 6 4 OB

REMARKS:

DATE

DATE





SITE SRUDAREA Inside millSTART TIME.
END TIME: SISOOOSSURVEYOR(S) EVANS

TYPE	INSTRUMENT	DETECTOR	BKG. (cpm)	INSTRUMENT EFF. (¢,)	MDC dpm/100cm²
Frisker	Ludlum 3	5-44	98	9110	755

			DIR	DIRECT DETECTOR MEASUREMENTS	R MEASURE	MEN	rs.			SURFACE TYPE AND
LOCATION	TYPE:	A	AVG		TYPE: MAX	NAX	 x		SMEAR#	CONDITION (other remarks)
	c/m	Es	ETotai	$dpm/100cm^2$	с/т	€,	€ _{Total}	dpm/100cm ²		
Asilytor tank	100	ئر	.058	1724	009	5°	850'	10,345	₹3	Fx Krior ONW
Super Sack	20	Ŋ,	850°	344	100	Ŋ	850°	4271		Disposedas trash
Super Sack	20	λ	\$50°	344	100	.5	850	1724		Disposed as tras v
Frontend loader	00	λ	850%	1724	200	-5	, 058	3448	ر	Bucket and Blade
										The state of the s
·										The state of the s
CALCULATION BY: R FUCLUL	Some		DATE:	E. 6/9/08	Ō)					
		مي			-		ATA RE	DATA REVIEWED / DATE		CALCIT ATTONS REVIEWED / DATE

Figure B-12 (Front)

DATA REVIEWED / DATE

CALCULATIONS REVIEWED / DATE

	人こつし
SITE	2 KUD
AREA 🦪	Inside Mill
START TIME:	ME:
END TIME	
DATE	6/2/08
SURVEYOR(S)	R(S) = 1000
	1

TYPE	INSTRUMENT	DETECTOR	BKG. (cpm)	INSTRUMENT EFF. (¢,)	MDC dpm/100cm²	
Tisker	Enallan3	44-9	40	9//*	755	

			DIR	DIRECT DETECTOR MEASUREMENTS	R MEASURI	EMEN	TS			SURFACE TYPE AND
LOCATION	TYPE:	2	AVG		TYPE:		MAX	×	SMEAR#	CONDITION (other remarks)
	c/m	Ęs	€ _{Total}	dpm/100cm ²	c/m	A.	E _{Total}	dpm/100cm ²	-	
Grader	100	ŗ.	, ø5g	1724	000	が	\$500	3 10,345	AN	Metal Suitace
-								-		
										The second secon
CALCULATION BY: RS (ULLUL)	33 autus	3	/ gate	80/5/03						
		,				Δ.	ATA RE	DATA REVIEWED / DATE	CALCULA	CALCULATIONS REVIEWED / DATE

Figure B-12 (Front)

TYPE	INSTRUMENT	DETECTOR	BKG. (cpm)	INSTRUMENT EFF. (¢,)	MDC dpm/100cm ²
[un/um	Model 3	6-44	20	91.	755

			DIR	DIRECT DETECTOR MEASUREMENTS	OR MEASURI	EMEN	2			SURFACE TYPE AND
LOCATION	TYPE:		AVG		TYPE:	XAW	X		SMEAR#	CONDITION (other remarks)
	c/m	Es	ETotal	$ m dpm/100cm^2$	с/т	Ę.	E _{Total}	dpm/100cm ²		
Shovel	20	ž.	850'	345	0	ΛĴ	\$50,	634	NA	
Shovel	20	rV.	, 058	345	09	лÚ	350'	1034		
shovel	20	'n	850'	345	80	3,	350,	1379		
PICK AXC	40	Š	, 058	069	00	nĵ	850,	1034		
Crow bar	40	Ņ	850, 5,	069	60	Ŋ	850.	1034	Waterburgs .	
Broom	2,0	3,	.058	060	\mathcal{S}	1	830.	1379		The state of the s
Bucket, 59	70	Š	,058	069	60	Š	. 058	1034		
Briket, Sg	م,	, N	,058	069	02	٦Ú	850	1034	a- 81 Washington	
5ter 5150	20	بت	,058	345	60	Š	850"	069		
5tep 5.50	20	Ñ	· 05&	345	-0 h	πί	850,	069	and the state of t	
(ooler	30	, S,	, 5, 258	517	09	5,	.058	1034		
Fire extingly wer	20)	Ŋ	850°	345	30	Ņ	850.	517	- And deposits stated to the	
Respirator	20		.058	345	20	15	850,	345	an der eine Augusten der 1	
Respirator	20	ri	850,	345	92	ń	,058	345		
Pospirator	30	Ň	,058	345	20	مُ	,058	345		
loader bucket	200	νĺ	850;	3448	300	3	350 %	5172		
قدم	ではファウアの			6 10/1						

CALCULATION BY: KILLUCULY DATE: 6/9/08

DATA REVIEWED / DATE CALCULATIONS REVIEWED / DATE

70		1045am		00	JANS
SRUD	MILL		ш	6/3/0	8
SITE	AREA	START TIME	END TIME.	DATE:	SURVEYOR(S)

TYPE	INSTRUMENT	DETECTOR	BKG. (cpm)	INSTRUMENT EFF. (¢,)	MDC dpm/100cm ²
ludlum	mode 13	6-111	20	9110	352

			 	DIRECT DETECTOR MEASUREMENTS	R MEASURE	MEN	TS			STIRFACE TVPE AND
LOCATION	TYPE:		AUG		TYPE:	M	MAX		SMEAR#	CONDITION (other remarks)
	c/m	e _s	ETotal	$\rm dpm/100cm^2$	c/m	e.	ETotal	dpm/100cm ²		
tad Loader Buket	J 100	.5	,058	1724	200	r,	,058	3448	NA	In Ed 91
5hw21	70	5,	8 <i>50</i> ×	345	30	ż	850'	517		
MINI excunator	50	.5	850;	362	200	Ň	850'			treads, groter, cas
blue 60x	20	5'		345	40	5,	850' 5'			
					177449949					
CALCULATION BY: RELUNCAVEL	Rolling	3		DATE: 6/9/08				TAXABLE DE LA CALLE DE LA CALL		
	•			-		<u> </u>	ATA REV	DATA REVIEWED / DATE	CALCULA	CALCULATIONS REVIEWED / DATE

Figure B-12 (Front)

90ars-50116C START TIME: 1000 and 10 15aN SURVEYOR(S) Conway END TIME: |O|SRUD MILL AREA SITE

	TYPE	INSTRUMENT	DETECTOR	BKG. (cpm)	INSTRUMENT EFF. (¢,)	MDC dpm/100cm²
5		E600	SHP380AB			
			R),	221 Jpm	
			8	369	572/20m.	

1000 L

		DIF	DIRECT DETECTO	OR MEASUREMENTS	MENT	S			SURFACE TYPE AND	
LOCATION	TYPE:	.X		TYPE:	β			SMEAR#	CONDITION (other remarks)	
りこう	c/m	Es ETotal	dpm/100cm ²	c/m		ETotal	dpm/100cm ²			
1-1-1	368	0.25 2381	7894	1853	150	61179	23002		around aginator Concrete	D rea
[-!·]- U	232		2216	1621			16-671		(contrakt	
1-1 1-11	137		1218	937			4088		(oncient	
1-1 1-A	175		1617	016			8386		Check	
1-1 1-6	611		1029	770			9/29		wirek	
1-1 1-4	0		934.5	562			2992		poom	·
<u> </u>	294		2867	1311			109"+1		2000	
F-1 1-1	235		424	1507			17639) 00000	
下.	232		2316	2241			16322		DOOM A	
1-1 1-4	[7]		1575	Q 19			3736		WADE GINDER CONCAK	
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- The state of the										
		-								
	,									
CALCULATION BY:	5/10	L DATE:	E SIMOS	25				つそび	12 4 mary 6/6/08	7

Figure B-12 (Front)

DATA REVIEWED / DATE

CALCULATIONS REVIEWED / DATE

SRUD SOPHIA

3 Fourtation

1045 gm

START TIME END TIME. DATE

SITE

ACTIVITY SURVEY RECORD

19 (of 2 MDC $dpm/100cm^2$ INSTRUMENT EFF. (¢,) BKG. (cpm) 369 21 8 #08E dHS X DETECTOR INSTRUMENT E600 Ebellne TYPE

outdoor concrete

Evans-Seribe

Conway

SURVEYOR(S)

6/2/08

DIRECT DETECTOR		TYPE: SOMEAR # CONDITION (other remarks)			7 120 971 2	Pal. 2.	5 .129 BICG .5	5 .12 BKG 3/16 58 8KG	5. 124 BKG. 5. 3116 5. 8KG. 5. 8KG.	5. 124 BKG. 5. 3116 5. 8KG. 5. 8KG. 5. 8KG.	5 .124 BKG. 5 .3116 5 .5 .8KG. 5 .5 .8KG. 7 .5 .5 .5	5 .124 BKG. 5 .81/6 5 .5 .8KG. 5 .5 .8KG. 5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	0.5.124 BKG5 3116 .5 8KG5 8KG5 8KG5 8KG5 .75%	5. 124 BKG. 5. 3116 5. 8KG. 5. 8KG. 5. 8KG. 5. 5. 1752. 5. 5. 5534	0.5.114 BKG. 2.5.3116 2.5.8KG. 2.6.7KG. 2.7KG. 2.7	0.5.124 BKG. 2.5.23116 2.5.28KG. 2.5	5 . 124 BKG. 5 . 124 BKG. 5 . 5 . 8KG. 5 . 5 . 8KG. 7 . 5 . 8KG. 8 . 5 . 8 . 8 . 8 . 8 . 8 . 8 . 8 . 8 .	5 . 124 BKG. 5 . 124 BKG. 5 . 5 . 8KG. 5 . 5 . 8KG. 7 . 8 . 8 . 8 . 8 . 8 . 8 . 8 . 8 . 8 .	5 114 BKG 3116 3116 3116 3116 3116 3116 3116 3116 3116 310	5 - 124 BKG - 125 SHE - 12	5 12 8K6 1 2 3/16 1 2 3/16 1 2 3/16 1 2 3/16 1 2 3/16 1 2 3/10 1 2
196977788678878787	TYPE:		ETutal dpm/100cm2	63 /	1/4	+x +1/1 1	1/4 2866 73	×8149=21	1/4 31.5	661	808 1/1	t-1 M		1311-21	1/4	1/2		+-	1/4 1365 156	2t DATE: 8/4/08	-

Figure B-12 (Front)

Collected backgrounds

Sophia

AREA BILG 3 FOUNDALOVY

SRUND

SITE

1120 a W

START TIME:_ END TIME. DATE:_

ACTIVITY SURVEY RECORD

Pg 2062 $\frac{\mathrm{MDC}}{\mathrm{dpm/100cm}^2}$ INSTRUMENT EFF. (ϵ_i) 369 BKG. (cpm) 7 ļſ X 9 SH18380AR DETECTOR INSTRUMENT E600 Ebelling TYPE

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GUANS - SUVIDE

Concony

SURVEYOR(S)_

80/2/0

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		ша	DIRECT DETECTOR MEASUREMENTS	R MEASURI	EMEN	TS			SURFACE TVPE AND
LOCATION	TYPE:	8		TYPE:	9			SMEAR #	CONDITION (other remarks)
	c/m	E _S E _{Total}	dpm/100cm ²	c/m	e.	E _{Total}	dpm/100cm ²		
0-5	196	1/4 0,381	粉舞	6/6	12	0.33	8528		
0-6	259	1/4	56h7	1197	×		12024		
F-4	177	h/\	8691	277	, 7		7 4510		
E-5	455	1/4	L55h	799/	5.		20104		
F-6	281	/4	Q63)	469	.5.		5.038		
7-4	230	1/4	2194.5	2080	Š		26521	-	
F-5	345	h//	3402	5521	×		13733		
ト-6	304	h/i	762	1291	ž		14291		
4-9	58	1/4	399	2011	72		Solin		
6-5	167	h/i	1533	(368	3		13 481		
9-5	191	h/1	1785	1109	ź	,	OLD //		
H-1	7	1/1	575	562	1		2992		Young
エース	155	<i>\\</i> /₁	1467	646	5		5115		
1-6	75	14	7665	409	Š		4573		
7-10	142	h/,	1271	887	Ň		8029		
- ! b	106	14	803	010	πί		3829		Leds c
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Figure B-12 (Front)

Refund 6/6/08

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RECORD
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SURVEY
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CTIVITY 5
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plof 3

SITE (RUD)

AREA SW END OF Buildow START TIME: Q. 730

END TIME: OS 40

DATE: 6/3/08

SURVEYOR(S) (LONALING)

UNATED

2m grids

TYPE	INSTRUMENT	DETECTOR	BKG. (cpm)	INSTRUMENT EFF. (¢,)	MDC dpm/100cm²
E-600	0664	858260			
Cent. If was of	1211. youros Due 14 buo9	70 mydas	22,6		
		9	342		

B 342	
UNATKINS	

DIRECT DETECTOR MEASUREMENTS TYPE: //	ETECTOR MEASUREMENTS TYPE: 12	R MEASUREMENTS TYPE: A	MENTS	SJ			SMEAR#	SURFACE TYPE AND CONDITION (other remarks)
\vdash		,	- 1				STIESTS #	
Es ETotal up	Εl	apm/100cm	c/m	Es	E _{Total}	apm/100cm		
18 1881 34,		BKG-17	330	Ś	1.12	BKG	-186	Concrete wall support
78	711	1346-80	312			1316	59H-	
	683	1 HAP	328			BKG	-217	
BK	X	1846-591	373			184	190	
D. A.	X	BKG-NG4	314			B.M.	-434	
DK6	2	05,020	336			BKG	-93	
BKG	100	BKG-1111	3/7			3K6	-388	
BK6.48	57	\$	305			BKG	1-574	
B	B	1/2	345			47		_
Sections	St.	Sec	785			2232		Floor Conered
756	2.5		578			3658		~
1001	<u> </u>		633			4511		
4267	e		1396			16337		
1306	3		517			2713		
+	7		362			3 (0		
757	15	9	327			BW	-233	,

Figure B-12 (Front)

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CALCULATION BY:

CALCULATIONS REVIEWED / DATE

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DATA REVIEWED / DATE

WATELLIS SURVEYOR(S) (SOUMPLY) SRUD START TIME. Ć END TIME: DATE: SITE AREA

 \mathbf{MDC} $\mathbf{dpm/100cm}^2$ INSTRUMENT EFF. (e,) 22.6 BKG. (cpm) 342 X ∞ # 907 Suphia DETECTOR INSTRUMENT 4790 3600472 The 14 Sew of Colly June 08 TYPE

2m Chils

			DIR	DIRECT DETECTOR MEASUREMENTS	R MEASURE	MEN	TS			SURFACE TYPE AND
LOCATION	TYPE:		\times		TYPE:		5		SMEAR#	CONDITION (other remarks)
	c/m	e _s	ETotal	$dpm/100cm^2$	c/m	, E,	€ _{Total}	$ m dpm/100cm^2$		
8-8	5	50:	1381	1816-185	316	5.	126	BILC	-403	Franciste Floor
13-9	19			ge 378	345			47		Manchelo Hay wall
1-2	/8/			BKG.48	379			415		Cholyto Floor
67	20			1340-27	399			488		
C-3	66			456	473			2030		
6-7	31			28	OIL			h50/		
6-5	26			357	371			0.54		
C-6	72			ルル	345			822		
0-7	14			BKG-90	331			BKG	171-	
C-8	8			BICG 153	353			171		
C-9				B 46 22	367			310		
D - 1	20			AM W	310			BKG	76-	wood on top of concrete
0-2	17			B.W.51	345			47		Congrete floor
03	17			1,59	422			che/		
70	る				406			266		
05	17			7,59	417			1163		→
CALCULATION BY: 🚽	bount	15	DATE:	E: 6/4/08	8		ļ		8	Rthand 6/6/8

Figure B-12 (Front)

DATA REVIEWED / DATE

CALCULATIONS REVIEWED/DATE
COLCULATIONS REVIEWED/DATE
COLCULATIONS REVIEWED/DATE values

1034 3

SITE SPUP

AREASW end of Bluble

START TIME: 0/30

END TIME: 0840

DATE: (2/3/08

SURVEYOR(S) Conway WATE INS

TYPE	INSTRUMENT	DETECTOR	BKG. (cpm)	INSTRUMENT EFF. (¢,)	MDC dpm/100cm²
C600#750		# 907 Swalend	,		
		X	727 ×		
		S	342		

			··•			-	·····	· · · · · · · · · · · · · · · · · · ·	43								
SURFACE TYPE AND	CONDITION (other remarks)						Concrete from Ater	peran	Con so to wall steemed				→				CALCULATIONS REVIEWED DATE
	SMEAR#									HHL-		07/-					CALCUL
		dpm/100cm ²	3878	808			13,702		295	B.K.C.	1395	1976	636				DATA REVIEWED / DATE
NTS.	8	Es ETotal	 	82/5						省	Ų	朝					DATA REV
ETECTOR MEASUREMENTS	TYPE:	s ————	592 5	762	412		1266		361	466	78h	333	583				
DIRECT DETECTOR	Ľ	dpm/100cm ²	BKC-39	3K6-17	88		9552		BKG-17 ,	5 31		B166-111	BV6-48	3			80/1/03
DIRE	X	Es ETotal	138,0 30,		,		(38)										DATE:
	TYPE:	c/m	15	176	31		266 ,25		7	24	23	1	./8			0	Hellow
	LOCATION		2-0	2-7	D-8		h-0	,	1-1	F-1	6-1	HI					CALCULATION BY:

Figure B-12 (Front)

Corrected brickgram &

2 told

ECTOR BKG.	EY RECORD MENT DETECTOR Sign Para
	TY SURVEY RECORD INSTRUMENT Sign Grant

SURVEYOR(S) Centulary WATKINS

CRST ALM

DATE: 6/3/0K

END TIME.

AREA OLS PAO SWOT START TIME: O840

SITE SRUD

												T		1					7	uc(comund	When Jalans
SURFACE TYPE AND	CONDITION (other remarks)		Cooce of Par												Mrth 1 2.1.4.1	(may pop	4	>	12 X (12) Cal Cal Cal Colors		
	SMEAR#								29-	248	797		585 /		7938	193	223	-496	2	1	
		dpm/100cm ²	24490	159	525	X138	20832	62849	BKC-	BKG	BIG	93	BALC	140	BKG-	BKG	BKG	BKG		DATA REVIEWED / DATE	
TS		ETotal	6.115																	ATA REVI	
EMEN	B	E.	10																	D	
CTOR MEASUREMENTS	TYPE:	c/m	1922	78K	376	267	1686	4400	338	326	3,6%	348	304	357	717	336	327	3.0	0,0		
DIRECT DETECTOR		dpm/100cm ²	393	111	BKG-27	BK4 50	204	67	BKg-90	B442101	8h-1918	197/2/CJ	BN/27	46.00		25Gr	BURGOR	281 ME	0c/41	,	rigule D-12 (F1011l)
DIR	X	E _{Total}	1381	(PATE	<u>.</u>	a ingr. r
		Ę.s.	\\\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \														-		13		
	TYPE:	с/ш	007	39	20	7-7	42	53	Ы	Ū	8	0)	2	27	7	157	0	0	M		
	LOCATION		1-6-	12	93	AY	195	181	28	63	84	35	6-1	2)	63	64	65	h-0	CALCULATION BY:		

SURVEYOR(S) Carredon, WATKINS AREA $Outs_1d \in \rho_{33}$ START TIME: ost_0 END TIME: ost_0 DATE: ost_0 SITE

ACT	ACTIVITY SURVEY RECORD	ORD		P242	7
TYPE	INSTRUMENT	DETECTOR	BKG. (cpm)	INSTRUMENT EFF. (¢ ₁)	MDC dpm/100cm²
Elevi	0,60	Spolua 907			
			976=X		
			3=342		

			DIR	DIRECT DETECTOR MEASUREMENTS	R MEASURE	MEN	rs			SURFACE TYPE AND
LOCATION	TYPE:	8			TYPE:		E		SMEAR#	CONDITION (other remarks)
	c/m	Es	Erotal	dpm/100cm ²	c/m	Ę	E _{Total}	$ m dpm/100cm^2$		
	 	500	0.381	· 8KG(12	329	5.0	621	BKG	-202	Courte Pao
	34			150	392			775		
	<i>ħ1</i>			B166-50]			826	6117	>
	16			PUL 2131	335			BKE	501	
	1,8			BHC, 43	317		.*	BKG	388	
	49			435	579			3674		ather decon
	かて			8×14.6	346			(2)		Who Lewon
					p					
					100000000000000000000000000000000000000					
7	0	1								
CALCULATION BK	WX		DATE:	E:		4	£ .			3-56mm 6/6/08
j.e						<u> </u>	AIA KE	DAIA KEVIEWED / DAIE		CALCULATIONS REVIEWED / DATE

Figure B-12 (Front)

corrected background

Pilotiz

CONWAY WATSON AREA Backside PAO (45) END TIME: $\frac{75}{6/3}$ START TIME SITE MUD SURVEYOR(S)_

2-neter grid

TYPE	INSTRUMENT	DETECTOR	BKG. (cpm)	INSTRUMENT EFF. (e,)	MDC dpm/100cm²
3600	2667	Sopher# 907			
It 14Janos			X= 22.6		
			14E = 8		

			1		1		T	T ***	T			1							- ,		Zunay S
SURFACE TYPE AND	CONDITION (other remarks)		Concrete PAD										(Wood	Convete PAD					-Parisary clasor	CALCULATIONS REVIEWED / DATE	corrected brukgrown
,	SMEAR#														-186	215-		0/1			
*.		dpm/100cm ²	3224	alt	1769	8138	2067	698	558	326	たら)	348	2883	1287	BKG	BKG	7776	BKG		DATA REVIEWED / DATE	
S.J		ETotal	121.0																	TA REV	
SMEN	(S)	E³	\%																	DA	
MEASURI	TYPE:	c/m	550	109	1003	667	475	387	378	363	350	358	875	425	330	309	403	341			
DIRECT DETECTOR MEASUREMENTS		dpm/100cm ²	19/ 107	Loca 403	JEES 2199	863 487	475 169	Sh 7 130	C9 ME	1.9Mg	BKB 50	BEE J	528 57	OCI 50/2	MAK-MC	BAKO-BKC 309	州 名 94	12 mg	E: C/4/08		B-12 (Front)
DIR		6 Total	(3%)								-				28/	7			DATE:		Figure B-12
	Ŏ	Es	54.																B		
>	TYPE:	c/m	38	17	232	128	38	36	29 9	رح	14	20	28	34.	75/	J	27	129	Mul))	
	LOCATION		141	7 W	A3	AY	AS	Ac	A	\$ \$	Д 9	A 10		a a	A 33		(B) (C)	Oct 82	CALCULATION BY;		

p 2 of 2

SITE SPULD

AREA BRESILE PAD behand

START TIME: 1445

END TIME: 1545

DATE: 6/3/08

SURVEYOR(S) GOLUMY

(3/6)

l st	TYPE	INSTRUMENT	DETECTOR	BKG. (cpm)	INSTRUMENT EFF. (¢,)	MDC dpm/100cm²
۱ :	6700	290	5phn 907			
)	9.28 =X		
				B-342		

			DIR	DIRECT DETECTOR MEASUREMENTS	R MEASURE	MEN	ĽS			SURFACE TYPE AND
LOCATION	TYPE:		X		TYPE:	\mathcal{C}		1	SMEAR #	CONDITION (other remarks)
	c/m	Es	6 Total	dpm/100cm ²	c/m	*9	ETotal	dpm/100cm ²		
83	3/	37.	185	88	T25#	5.	12 W.	1705		Concerte 1980
84	31			88	455			1157		
85	24			72	ach			1209		
86	61			BKL 38	372			315		
87	77			BKC-6	370			434		
98	4			193	285			3687		2
	7000									
CALCULATION BY;	Mello	N	DAT	スロ/カ/タ 当	><				1) - La	11 favorab 6/6/08
						ď	ATA REV	DATA REVIEWED / DATE	CALCULA	TIONS REVIEWED / DATE

Figure B-12 (Front)

ons reviewed/date Coffected Cackground Values

En. Chute B3 134 135 86 B1 B8 Slope up HII Backide Backers
Bly 4 132 $\frac{2}{2}$ Rf (waw) 6/6/8