

Health Physics Sample Records

Sample ID: 142507

Type: RLSSS

Type Detail: SAND

Status: APPROVED

Rasterized: ☒

Description: 14060614BD 07 NORTH LAYDOWN # 13

Common

Resp Org: P4000 - PROJECT MANAGEMEN

Cross Ref Sample ID:

Priority: N

Contact: COOPER, TERRY L

Survey No:

Reference ID:

Accounting Subcode:

Unknown Mat: NO

Hazardous Mat: NO

Comments: COUNT TO MDA

Reviewed: DYNES, WILLIAM J

Date: 06/09/14 08:49

Comments: COUNT TO MDA

Origin

Mat. Size/Volume: 2175 GRAMS

Docmnt/MO/Act #:

Proposed Ship Date: 00/00/00 00:00

Description: NORTH LAYDOWN # 13

Collection

Sample Tech: DYNES, WILLIAM J

Sample Date: 06/06/14 11:30

Count Time: 900 (secs.)

Tritium Req: No

Sample Size/Volume: 2175 GRAMS

Instructions: COUNT TO MDA

Comments: COUNT TO MDA

RLSSS

Exempt: No

Evaluated: No

Chem Notification: No

State Permit: No

Offsite Analysis: No

Effluent Permit: No

Container Surveyed: No

Cleared For Release: Yes

Container Evaluated: No

Form 212 Ready: ☒

Location

Unit: NON-UNIT RE

Area: MS

Elev: 100

Room:

Depth: (in.)

Equip ID:

Stored By: ,

Date: 00/00/00 00:00

Sample Loc:

Other: COUNT TO MDA

Material Loc:

Health Physics Sample Records

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Type: RLSSS















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Status: APPROVED

Rasterized: 

Description: 14060614BD 07 NORTH LAYDOWN # 13

Analysis

Geometry	MCA ID	Quant.	Units	Method	FP/AP	Lab	Analysis By	Date	Mod ID	Mod Date
B_1L_marinelli_sand_	30418	2175	GR		.000		NEEBE, DAVID J	06/09/14 20:13		
Isotope	Mode	Activity	Activity Uncert.	LLD/MDA	% Abund.	Atom. No.	Comments		Mod Id	Mod Date
0 K-40	NT	8.145E-6	1.287E-6		86.753%	40				
0 TL-208	NT	3.084E-7	7.45E-8		3.285%	208				
0 BI-214	NT	2.771E-7	7.09E-8		2.951%	214				
0 PB-214	NT	6.582E-7	1.6E-7		7.011%	214				
0 BE-7	AP	5.6094E-7			0.000%	7				
0 MN-54	AP	1.1349E-7			0.000%	54				
0 MN-56	AP	1.4311E-7			0.000%	56				
0 CO-57	AP	8.4936E-8			0.000%	57				
0 CO-58	AP	9.5608E-8			0.000%	58				
0 CO-60	AP	1.1503E-7			0.000%	60				
0 SB-124	AP	1.0542E-7			0.000%	124				
0 SB-125	FP	2.5043E-7			0.000%	125				
0 CS-134	FP	7.8264E-8			0.000%	134				
0 CS-137	FP	1.0419E-7			0.000%	137				

Analysis Review

Re-Analyze: No

Lic Rad Mat Present: No

Reviewed: COOPER, TERRY L

Date: 06/11/14 08:04

Hp Eng Rvw Req'd: Yes

Rad Mat Present: Yes

HP Notified Name:

Comments:

Health Physics Sample Records

Sample ID: 142507

Type: RLSSS

Type Detail: SAND

Status: APPROVED

Rasterized: 

Description: 14060614BD 07 NORTH LAYDOWN # 13

Review/Approve

HP Eng Review

Reviewed: COOPER, TERRY L

Date: 06/11/14 08:09

Comments: the 338 keV peak is Ac-228

Disposition

Disposition: OTHER

Result: Sample contains only natural isotopes

Remarks:

Final Approval

Approved: COOPER, TERRY L

Date: 06/11/14 08:09

Comments:

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*****
*          SONGS                      HEALTH PHYSICS REPORT          9-JUN-2014 20:10  *
*-----*
*          >>>> SAMPLE  PARAMETERS <<<<          *
*
* Title      : 14060614BD 07 NORTH LAYDOWN # 13          *
*
* ID         : 30418                      Acquisition date: 9-JUN-2014 20:07:46. *
* Start Time: 9-JUN-2014 20:07:00.          *
* Stop Time: 9-JUN-2014 20:07:00.          Counting System   : U2GSP          *
* Quantity  : 2.17500E+03 GR              IHPS Sample Number: 142507          *
* Geometry  : B_1L_marinelli_sand_1      Analysis Library  : HP_NATURAL          *
*          Operator: DAVID NEEBE          *
*-----*
*          >>>> B #42-TP11663A  PARAMETERS <<<<          *
*
* Elapsed Live Time : 0 00:03:00.45      Calibration       : 9-JUN-2014 19:36:          *
* Elapsed Real Time  : 0 00:03:00.49      Energy Offset      : -5.05220E-01          *
* Deadtime           : 0.0%               Energy Slope       : 5.00079E-01          *
* Activity Mult Factor: 1.00000E+00      Energy Tolerance: 1.00000          *
* Half Life Ratio    : 8.00000           Sensitivity        : 5.00000          *
*
*****

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Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
1	77.04	23	34	1.10	155.07	150	8	49.4	2.06E+00	BI-214 PB-214
1	295.07	27	5	1.24	591.07	586	9	24.3	5.37E-01	PB-214
1	338.07	19	10	1.52	677.04	672	13	41.2	5.89E-01	
1	351.91	41	0	2.17	704.73	698	12	16.2	8.53E-01	PB-214
1	583.14	22	0	1.42	1167.12	1162	12	24.2	8.27E-01	TL-208
1	609.42	15	0	1.50	1219.67	1215	8	25.6	4.05E-01	BI-214
1	1460.83	53	3	1.75	2922.30	2915	13	15.8	5.19E-01	K-40

Summary of Nuclide Activity
Sample ID : 30418

Page : 2
Acquisition date : 9-JUN-2014 20:07:46

Total number of lines in spectrum 7
Number of unidentified lines 0
Number of lines tentatively identified by NID 7 100.00%

Nuclide Type : natural

Nuclide	Hlife	Decay	Uncorrected uCi/GR	Decay Corr uCi/GR	Decay Corr 1-Sigma Error	1-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	8.145E-06	8.145E-06	1.287E-06	15.80	A
TL-208	3.05M	1.65	1.873E-07	3.084E-07	0.745E-07	24.15	A
BI-214	19.90M	1.08	2.561E-07	2.771E-07	0.709E-07	25.58	A
PB-214	26.80M	1.06	6.207E-07	6.582E-07	1.600E-07	24.31	A
Total Activity :			9.209E-06	9.389E-06			

Grand Total Activity : 9.209E-06 9.389E-06

Flags: "K" = Keyline not found
"E" = Manually edited

"M" = Manually accepted
"A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : 30418

Page : 3
Acquisition date : 9-JUN-2014 20:07:46

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	338.07	19	10	1.52	677.04	672	13	1.03E-01	41.2	1.44E+00	T

Flags: "T" = Tentatively associated

Interference Report
Sample ID : 30418

Page : 4
Acquisition date : 9-JUN-2014 20:07:46

No interference correction performed

Nuclide Type: natural

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected Decay Corr		1-Sigma
					uCi/GR	uCi/GR	%Error
K-40	1460.83	53	10.67*	4.211E-01	8.145E-06	8.145E-06	15.80
TL-208	72.80	-----	2.14	1.070E+00	-----	Line Not Found	-----
	74.97	-----	3.60	1.156E+00	-----	Line Not Found	-----
	84.79	-----	1.27	1.506E+00	-----	Line Not Found	-----
	252.45	-----	0.80	1.745E+00	-----	Line Not Found	-----
	277.28	-----	6.80	1.645E+00	-----	Line Not Found	-----
	510.61	-----	21.60	1.035E+00	-----	Line Not Found	-----
BI-214	583.02	22	86.00*	9.197E-01	1.873E-07	3.084E-07	24.15
	763.06	-----	1.64	7.126E-01	-----	Line Not Found	-----
	860.30	-----	12.00	6.341E-01	-----	Line Not Found	-----
	76.86	23	0.58	1.236E+00	2.191E-05	2.371E-05	49.41
	79.29	-----	0.97	1.320E+00	-----	Line Not Found	-----
	609.31	15	46.10*	8.831E-01	2.561E-07	2.771E-07	25.58
	665.44	-----	1.56	8.131E-01	-----	Line Not Found	-----
	768.35	-----	4.88	7.078E-01	-----	Line Not Found	-----
	806.16	-----	1.23	6.754E-01	-----	Line Not Found	-----
	934.04	-----	3.16	5.861E-01	-----	Line Not Found	-----
	1120.27	-----	15.00	4.982E-01	-----	Line Not Found	-----
	1155.18	-----	1.69	4.860E-01	-----	Line Not Found	-----
	1238.11	-----	5.92	4.615E-01	-----	Line Not Found	-----
	1280.95	-----	1.47	4.510E-01	-----	Line Not Found	-----
	1377.66	-----	4.02	4.323E-01	-----	Line Not Found	-----
	1385.30	-----	0.78	4.311E-01	-----	Line Not Found	-----
	1401.48	-----	1.39	4.287E-01	-----	Line Not Found	-----
	1407.97	-----	2.48	4.277E-01	-----	Line Not Found	-----
	1509.22	-----	2.19	4.165E-01	-----	Line Not Found	-----
	1583.22	-----	0.72	4.120E-01	-----	Line Not Found	-----
PB-214	1661.26	-----	1.15	4.103E-01	-----	Line Not Found	-----
	1729.58	-----	3.05	4.114E-01	-----	Line Not Found	-----
	1764.49	-----	15.90	4.128E-01	-----	Line Not Found	-----
	1847.41	-----	2.12	4.187E-01	-----	Line Not Found	-----
	53.17	-----	1.10	2.929E-01	-----	Line Not Found	-----
	74.81	-----	6.52	1.150E+00	-----	Line Not Found	-----
	77.11	23	11.00	1.236E+00	1.155E-06	1.225E-06	49.41
	87.19	-----	3.88	1.579E+00	-----	Line Not Found	-----
	90.13	-----	1.15	1.662E+00	-----	Line Not Found	-----
	241.92	-----	7.46	1.790E+00	-----	Line Not Found	-----
	258.94	-----	0.55	1.718E+00	-----	Line Not Found	-----
	295.09	27	19.20*	1.579E+00	6.207E-07	6.582E-07	24.31
	351.87	41	37.10	1.395E+00	5.515E-07	5.848E-07	16.18
	785.83	-----	1.09	6.925E-01	-----	Line Not Found	-----
	839.00	-----	0.59	6.497E-01	-----	Line Not Found	-----

Flag: "*" = Keyline

Minimum Detectable Activity Report
Sample ID : 30418

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Acquisition date : 9-JUN-2014 20:07:46

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/GR)
BE-7	2.	477.61	5.6094E-07
MN-54	3.	834.83	1.1349E-07
MN-56	5.	846.81	1.4311E-07
CO-57	18.	122.06	8.4936E-08
CO-58	2.	810.79	9.5608E-08
CO-60	1.	1332.50	1.1503E-07
SB-124	5.	602.73	1.0542E-07
SB-125	5.	427.88	2.5043E-07
CS-134	2.	604.71	7.8264E-08
CS-137	3.	661.66	1.0419E-07