

Health Physics Sample Records

Sample ID: 142437

Type: RLSSS

Type Detail: SAND

Status: APPROVED

Rasterized: ☒

Description: 140528BD 08 STAR 8-20 Dirt Sample

Common

Resp Org: P4000 - PROJECT MANAGEMENT

Cross Ref Sample ID:

Priority: N

Contact: COOPER, TERRY L

Survey No:

Reference ID:

Accounting Subcode:

Unknown Mat: NO

Hazardous Mat: NO

Comments:

Reviewed: DYNES, WILLIAM J

Date: 05/29/14 11:24

Comments:

Origin

Mat. Size/Volume: 1000 ml

Docmnt/MO/Act #:

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

Description: STAR 02 SOIL SAMPLE

Collection

Sample Tech: DYNES, WILLIAM J

Sample Date: 05/28/14 13:11

Count Time: 900 (secs.)

Tritium Req: No

Sample Size/Volume: 2104 GRAMS

Instructions:

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: Yes

Form 212 Ready: ☒

Location

Unit: NON-UNIT RE

Area: MS

Elev: 100

Room:

Depth: 3" (in.)

Equip ID:

Stored By: ,

Date: 00/00/00 00:00

Sample Loc:

Other:

Material Loc:


Health Physics Sample Records

Sample ID: 142437

Type: RLSSS
















Type Detail: SAND

Status: APPROVED

Rasterized: 

Description: 140528BD 08 STAR 8-20 Dirt Sample

Analysis

Geometry	MCA ID	Quant.	Units	Method	FP/AP	Lab	Analysis By	Date	Mod ID	Mod Date
A_1L_marinelli_sand_	30270	2104	GR		.000		ABERNATHY, AGNES B	05/29/14 16:13		
Isotope	Mode	Activity	Activity Uncert.	LLD/MDA	% Abund.	Atom. No.	Comments		Mod Id	Mod Date
0 K-40	NT	0.00001147	1.2E-6		83.624%	40				
0 PB-212	NT	6.502E-7	1.47E-7		4.740%	212				
0 BI-214	NT	3.284E-7	8.24E-8		2.394%	214				
0 PB-214	NT	7.043E-7	2.136E-7		5.135%	214				
0 AC-228	NT	5.633E-7	1.499E-7		4.107%	228				
0 BE-7	AP	5.5993E-7			0.000%	7				
0 MN-54	AP	1.0108E-7			0.000%	54				
0 MN-56	AP	7.6673E-8			0.000%	56				
0 CO-57	AP	7.8074E-8			0.000%	57				
0 CO-58	AP	1.0738E-7			0.000%	58				
0 CO-60	AP	9.5645E-8			0.000%	60				
0 SB-124	AP	7.1542E-8			0.000%	124				
0 SB-125	FP	1.7945E-7			0.000%	125				
0 CS-134	FP	7.1416E-8			0.000%	134				
0 CS-137	FP	2.25E-8			0.000%	137				

Analysis Review

Re-Analyze: No

Lic Rad Mat Present: No

Reviewed: COOPER, TERRY L

Date: 06/10/14 09:48

Hp Eng Rvw Req'd: Yes

Rad Mat Present: Yes

HP Notified Name:

Comments:

Health Physics Sample Records

Sample ID: 142437

Type: RLSSS

Type Detail: SAND

Status: APPROVED

Rasterized: 

Description: 140528BD 08 STAR 8-20 Dirt Sample

Review/Approve

HP Eng Review

Reviewed: COOPER, TERRY L

Date: 06/10/14 09:48

Comments:

Disposition

Disposition: OTHER

Result: Sample contains only natural isotopes

Remarks:

Final Approval

Approved: COOPER, TERRY L

Date: 06/10/14 09:48

Comments:

```

*****
*          SONGS                      HEALTH PHYSICS REPORT          29-MAY-2014 16:07      *
*-----*
*          >>>> SAMPLE   PARAMETERS <<<<
*
* Title      : 140528BD 08 STAR 8-20 DIRT SAMPLE
*
* ID         : 30270                      Acquisition date: 29-MAY-2014 16:04:02
* Start Time: 29-MAY-2014 16:04:00
* Stop Time : 29-MAY-2014 16:04:00      Counting System   : U2GSP
* Quantity  : 2.10400E+03 GR             IHPS Sample Number: 142437
* Geometry  : A_1L_marinelli_sand_1     Analysis Library  : HP_NATURAL
*                      Operator: AGNES ABERNATHY
*-----*
*          >>>> A #41-TP11679B   PARAMETERS <<<<
*
* Elapsed Live Time   : 0 00:03:00.39   Calibration       : 28-MAY-2014 21:10
* Elapsed Real Time   : 0 00:03:00.45   Energy Offset      : 2.58874E-01
* Deadtime            : 0.0%             Energy Slope       : 4.99485E-01
* Activity Mult Factor: 1.00000E+00      Energy Tolerance: 1.00000
* Half Life Ratio     : 8.00000          Sensitivity        : 5.00000
*
*****

```

Post-NID Peak Search Report

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides
1	238.28	83	82	1.39	476.54	473	11	22.6	1.54E+01	PB-212
1	295.34	34	20	1.55	590.76	586	12	30.3	1.03E+00	PB-214
1	338.10	17	9	1.50	676.39	673	9	39.9	1.38E+00	AC-228
1	351.84	51	18	1.93	703.90	700	10	21.2	8.24E+00	PB-214
1	609.30	22	2	1.64	1219.35	1215	9	25.1	8.71E-01	BI-214
1	911.24	17	2	1.67	1823.86	1819	8	26.6	2.23E-01	AC-228
1	1460.73	91	0	1.92	2924.03	2919	10	10.4	7.20E-01	K-40

Summary of Nuclide Activity
Sample ID : 30270

Page : 2
Acquisition date : 29-MAY-2014 16:04:02

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	1.147E-05	1.147E-05	0.120E-05	10.45	A
PB-212	10.64H	1.00	6.492E-07	6.502E-07	1.470E-07	22.61	A
BI-214	19.90M	1.05	3.113E-07	3.284E-07	0.824E-07	25.10	A
PB-214	26.80M	1.04	6.768E-07	7.043E-07	2.136E-07	30.33	A
AC-228	6.13H	1.00	5.617E-07	5.633E-07	1.499E-07	26.61	A
Total Activity :			1.367E-05	1.371E-05			

Grand Total Activity : 1.367E-05 1.371E-05

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

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

Unidentified Energy Lines
Sample ID : 30270

Page : 3
Acquisition date : 29-MAY-2014 16:04:02

None

Flags: "T" = Tentatively associated

Interference Report
Sample ID : 30270

Page : 4
Acquisition date : 29-MAY-2014 16:04:02

No interference correction performed

Nuclide Type: natural

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected uCi/GR	Decay Corr uCi/GR	1-Sigma %Error
K-40	1460.83	91	10.67*	5.314E-01	1.147E-05	1.147E-05	10.45
PB-212	74.81	-----	10.50	1.685E+00	-----	Line Not Found	-----
	77.11	-----	17.70	1.782E+00	-----	Line Not Found	-----
	87.19	-----	6.27	2.129E+00	-----	Line Not Found	-----
	90.13	-----	1.86	2.206E+00	-----	Line Not Found	-----
	115.12	-----	0.59	2.535E+00	-----	Line Not Found	-----
	238.58	83	43.60*	2.084E+00	6.492E-07	6.502E-07	22.61
	300.03	-----	3.34	1.834E+00	-----	Line Not Found	-----
BI-214	76.86	-----	0.58	1.772E+00	-----	Line Not Found	-----
	79.29	-----	0.97	1.869E+00	-----	Line Not Found	-----
	609.31	22	46.10*	1.084E+00	3.113E-07	3.284E-07	25.10
	665.44	-----	1.56	9.985E-01	-----	Line Not Found	-----
	768.35	-----	4.88	8.685E-01	-----	Line Not Found	-----
	806.16	-----	1.23	8.283E-01	-----	Line Not Found	-----
	934.04	-----	3.16	7.177E-01	-----	Line Not Found	-----
	1120.27	-----	15.00	6.114E-01	-----	Line Not Found	-----
	1155.18	-----	1.69	5.973E-01	-----	Line Not Found	-----
	1238.11	-----	5.92	5.697E-01	-----	Line Not Found	-----
	1280.95	-----	1.47	5.585E-01	-----	Line Not Found	-----
	1377.66	-----	4.02	5.401E-01	-----	Line Not Found	-----
	1385.30	-----	0.78	5.391E-01	-----	Line Not Found	-----
	1401.48	-----	1.39	5.370E-01	-----	Line Not Found	-----
	1407.97	-----	2.48	5.362E-01	-----	Line Not Found	-----
	1509.22	-----	2.19	5.292E-01	-----	Line Not Found	-----
	1583.22	-----	0.72	5.296E-01	-----	Line Not Found	-----
	1661.26	-----	1.15	5.351E-01	-----	Line Not Found	-----
	1729.58	-----	3.05	5.442E-01	-----	Line Not Found	-----
	1764.49	-----	15.90	5.503E-01	-----	Line Not Found	-----
	1847.41	-----	2.12	5.694E-01	-----	Line Not Found	-----
PB-214	53.17	-----	1.10	5.543E-01	-----	Line Not Found	-----
	74.81	-----	6.52	1.685E+00	-----	Line Not Found	-----
	77.11	-----	11.00	1.782E+00	-----	Line Not Found	-----
	87.19	-----	3.88	2.129E+00	-----	Line Not Found	-----
	90.13	-----	1.15	2.206E+00	-----	Line Not Found	-----
	241.92	-----	7.46	2.067E+00	-----	Line Not Found	-----
	258.94	-----	0.55	1.994E+00	-----	Line Not Found	-----
	295.09	34	19.20*	1.851E+00	6.768E-07	7.043E-07	30.33
	351.87	51	37.10	1.662E+00	5.925E-07	6.165E-07	21.20
	785.83	-----	1.09	8.495E-01	-----	Line Not Found	-----
	839.00	-----	0.59	7.964E-01	-----	Line Not Found	-----
AC-228	89.96	-----	3.40	2.201E+00	-----	Line Not Found	-----
	93.35	-----	5.60	2.279E+00	-----	Line Not Found	-----
	99.55	-----	1.30	2.389E+00	-----	Line Not Found	-----
	105.36	-----	2.00	2.463E+00	-----	Line Not Found	-----
	108.99	-----	0.67	2.496E+00	-----	Line Not Found	-----
	129.03	-----	2.90	2.562E+00	-----	Line Not Found	-----
	153.89	-----	0.84	2.496E+00	-----	Line Not Found	-----
	209.39	-----	4.10	2.221E+00	-----	Line Not Found	-----
	216.24	-----	0.80	2.187E+00	-----	Line Not Found	-----

Nuclide Type: natural

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected uCi/GR	Decay Corr uCi/GR	1-Sigma %Error
	270.26	-----	3.80	1.948E+00	-----	Line Not Found	-----
	328.07	-----	3.50	1.738E+00	-----	Line Not Found	-----
	338.42	17	12.40	1.705E+00	5.741E-07	5.758E-07	39.90
	340.94	-----	0.52	1.696E+00	-----	Line Not Found	-----
	409.62	-----	2.20	1.499E+00	-----	Line Not Found	-----
	463.10	-----	4.60	1.368E+00	-----	Line Not Found	-----
	562.65	-----	1.01	1.164E+00	-----	Line Not Found	-----
	581.52	-----	3.00	1.131E+00	-----	Line Not Found	-----
	726.63	-----	0.87	9.173E-01	-----	Line Not Found	-----
	755.28	-----	1.32	8.833E-01	-----	Line Not Found	-----
	772.28	-----	1.09	8.641E-01	-----	Line Not Found	-----
	782.12	-----	0.59	8.534E-01	-----	Line Not Found	-----
	794.79	-----	4.60	8.400E-01	-----	Line Not Found	-----
	830.59	-----	0.63	8.043E-01	-----	Line Not Found	-----
	835.60	-----	1.71	7.996E-01	-----	Line Not Found	-----
	840.44	-----	0.94	7.951E-01	-----	Line Not Found	-----
	904.29	-----	0.89	7.403E-01	-----	Line Not Found	-----
	911.16	17	29.00*	7.348E-01	5.617E-07	5.633E-07	26.61
	964.64	-----	5.80	6.962E-01	-----	Line Not Found	-----
	968.97	-----	17.40	6.933E-01	-----	Line Not Found	-----
	1246.60	-----	0.57	5.673E-01	-----	Line Not Found	-----
	1459.19	-----	1.06	5.315E-01	-----	Line Not Found	-----
	1496.00	-----	1.05	5.296E-01	-----	Line Not Found	-----
	1501.44	-----	0.58	5.294E-01	-----	Line Not Found	-----
	1580.30	-----	0.71	5.295E-01	-----	Line Not Found	-----
	1588.23	-----	3.60	5.298E-01	-----	Line Not Found	-----
	1630.47	-----	1.95	5.324E-01	-----	Line Not Found	-----
	1638.10	-----	0.54	5.330E-01	-----	Line Not Found	-----

Flag: "*" = Keyline

Minimum Detectable Activity Report
Sample ID : 30270

Page : 7
Acquisition date : 29-MAY-2014 16:04:02

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/GR)
BE-7	3.	477.61	5.5993E-07
MN-54	3.	834.83	1.0108E-07
MN-56	1.	846.81	7.6673E-08
CO-57	21.	122.06	7.8074E-08
CO-58	4.	810.79	1.0738E-07
CO-60	1.	1332.50	9.5645E-08
SB-124	3.	602.73	7.1542E-08
SB-125	3.	427.88	1.7945E-07
CS-134	3.	604.71	7.1416E-08
CS-137	0.	661.66	2.2500E-08