

Health Physics Sample Records

Sample ID: **142490**

Type: RLSSS

Type Detail: SAND

Status: APPROVED

Rasterized: ☒

Description: 140605BD01 SOUTH LAY DOWN # 2

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: 06/06/14 07:11

Comments:

Origin

Mat. Size/Volume: 1955 GRAMS

Docmnt/MO/Act #:

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

Description: SOUTH LAY DOWN # 2

Collection

Sample Tech: DYNES, WILLIAM J

Sample Date: 06/05/14 12:50

Count Time: 900 (secs.)

Tritium Req: No

Sample Size/Volume: 1955 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: Yes

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

Sample ID: 142490

Type: RLSSS

Type Detail: SAND

Status: APPROVED

Rasterized: ☐

Description: 140605BD01 SOUTH LAY DOWN # 2

Analysis

Geometry	MCA ID	Quant.	Units	Method	FP/AP	Lab	Analysis By	Date	Mod ID	Mod Date
C_1L_marinelli_sand_	30382	1955	GR		.000		LYLE, OWEN M	06/06/14 13:58		
Isotope	Mode	Activity	Activity Uncert.	LLD/MDA	% Abund.	Atom. No.	Comments		Mod Id	Mod Date
0 K-40	NT	0.00001174	1.31E-6	<input type="checkbox"/>	77.589%	40				
0 TL-208	NT	3.269E-7	7.41E-8	<input type="checkbox"/>	2.160%	208				
0 PB-212	NT	5.745E-7	1.108E-7	<input type="checkbox"/>	3.797%	212				
0 BI-214	NT	5.083E-7	1.461E-7	<input type="checkbox"/>	3.359%	214				
0 PB-214	NT	8.074E-7	2.101E-7	<input type="checkbox"/>	5.336%	214				
0 AC-228	NT	1.174E-6	2.51E-7	<input type="checkbox"/>	7.759%	228				
0 BE-7	AP	6.1272E-7		<input checked="" type="checkbox"/>	0.000%	7				
0 MN-54	AP	9.2108E-8		<input checked="" type="checkbox"/>	0.000%	54				
0 MN-56	AP	7.1547E-8		<input checked="" type="checkbox"/>	0.000%	56				
0 CO-57	AP	7.6542E-8		<input checked="" type="checkbox"/>	0.000%	57				
0 CO-58	AP	2.4757E-8		<input checked="" type="checkbox"/>	0.000%	58				
0 CO-60	AP	1.3737E-7		<input checked="" type="checkbox"/>	0.000%	60				
0 SB-124	AP	7.5023E-8		<input checked="" type="checkbox"/>	0.000%	124				
0 SB-125	FP	1.5973E-7		<input checked="" type="checkbox"/>	0.000%	125				
0 CS-134	FP	6.9217E-8		<input checked="" type="checkbox"/>	0.000%	134				
0 CS-137	FP	9.4633E-8		<input checked="" type="checkbox"/>	0.000%	137				

Analysis Review

Re-Analyze: No

Lic Rad Mat Present: No

Reviewed: COOPER, TERRY L

Date: 06/11/14 06:25

Hp Eng Rvw Req'd: Yes

Rad Mat Present: Yes

HP Notified Name:

Comments:

Health Physics Sample Records

Sample ID: **142490**

Type: RLSSS

Type Detail: SAND

Status: APPROVED

Rasterized: 

Description: 140605BD01 SOUTH LAY DOWN # 2

Review/Approve

HP Eng Review

Reviewed: COOPER, TERRY L

Date: 06/11/14 06:25

Comments:

Disposition

Disposition: OTHER

Result: Sample contains only natural isotopes

Remarks:

Final Approval

Approved: COOPER, TERRY L

Date: 06/11/14 06:25

Comments:

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*****
*          SONGS                      HEALTH PHYSICS REPORT          6-JUN-2014 13:54      *
*-----*
*          >>>> SAMPLE   PARAMETERS <<<<
*
* Title      : 140605BD01 SOUTH LAY DOWN # 2
*
* ID         : 30382                      Acquisition date: 6-JUN-2014 13:50:55.
* Start Time: 6-JUN-2014 13:50:00.
* Stop Time : 6-JUN-2014 13:50:00.      Counting System   : U2GSP
* Quantity   : 1.95500E+03 GR           IHPS Sample Number: 142490
* Geometry    : C_1L_marinelli_sand_1   Analysis Library  : HP_NATURAL
* Operator    : OWEN LYLE
*-----*
*          >>>> C #41-TP11750A   PARAMETERS <<<<
*
* Elapsed Live Time : 0 00:03:00.46   Calibration       : 5-JUN-2014 19:42:
* Elapsed Real Time  : 0 00:03:00.50   Energy Offset      : -1.03481E-01
* Deadtime           : 0.0%             Energy Slope       : 4.99812E-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	77.34	24	44	1.25	154.94	152	7	51.1	2.80E+00	BI-214 PB-212 PB-214
1	209.28	25	11	1.57	418.91	416	8	33.2	1.91E+00	AC-228
1	238.61	67	33	1.12	477.59	473	11	19.3	2.18E+00	PB-212
1	295.40	35	15	1.23	591.19	588	9	26.0	1.64E+00	PB-214
1	338.20	23	9	2.43	676.82	673	9	29.9	1.01E+00	AC-228
1	351.99	38	8	1.28	704.40	699	11	22.4	4.98E-01	PB-214
1	582.87	25	2	1.97	1166.27	1162	8	22.7	1.55E+00	TL-208
1	609.33	31	11	1.47	1219.20	1213	14	28.7	2.82E-01	BI-214
1	968.85	19	0	2.21	1938.29	1934	8	21.3	1.73E-01	AC-228
1	1460.97	91	3	1.95	2922.47	2917	11	11.2	1.23E+00	K-40

Summary of Nuclide Activity
Sample ID : 30382

Page : 2
Acquisition date : 6-JUN-2014 13:50:55

Total number of lines in spectrum 10
Number of unidentified lines 0
Number of lines tentatively identified by NID 10 100.00%

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	1.174E-05	1.174E-05	0.131E-05	11.20	A
TL-208	3.05M	1.70	1.919E-07	3.269E-07	0.741E-07	22.68	A
PB-212	10.64H	1.00	5.730E-07	5.745E-07	1.108E-07	19.29	A
BI-214	19.90M	1.09	4.672E-07	5.083E-07	1.461E-07	28.75	A
PB-214	26.80M	1.06	7.584E-07	8.074E-07	2.101E-07	26.03	A
AC-228	6.13H	1.00	1.169E-06	1.174E-06	0.251E-06	21.33	KA
Total Activity :			1.490E-05	1.513E-05			

Grand Total Activity : 1.490E-05 1.513E-05

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : 30382

Page : 3
Acquisition date : 6-JUN-2014 13:50:55

None

Flags: "T" = Tentatively associated

Interference Report
Sample ID : 30382

Page : 4
Acquisition date : 6-JUN-2014 13:50:55

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*	5.560E-01	1.174E-05	1.174E-05	11.20
TL-208	72.80	-----	2.14	1.486E+00	-----	Line Not Found	-----
	74.97	-----	3.60	1.577E+00	-----	Line Not Found	-----
	84.79	-----	1.27	1.917E+00	-----	Line Not Found	-----
	252.45	-----	0.80	2.004E+00	-----	Line Not Found	-----
	277.28	-----	6.80	1.917E+00	-----	Line Not Found	-----
	510.61	-----	21.60	1.298E+00	-----	Line Not Found	-----
	583.02	25	86.00*	1.158E+00	1.919E-07	3.269E-07	22.68
	763.06	-----	1.64	8.934E-01	-----	Line Not Found	-----
	860.30	-----	12.00	7.922E-01	-----	Line Not Found	-----
PB-212	74.81	-----	10.50	1.570E+00	-----	Line Not Found	-----
	77.11	24	17.70	1.669E+00	6.242E-07	6.258E-07	51.15
	87.19	-----	6.27	1.983E+00	-----	Line Not Found	-----
	90.13	-----	1.86	2.055E+00	-----	Line Not Found	-----
	115.12	-----	0.59	2.376E+00	-----	Line Not Found	-----
	238.58	67	43.60*	2.055E+00	5.730E-07	5.745E-07	19.29
	300.03	-----	3.34	1.843E+00	-----	Line Not Found	-----
BI-214	76.86	24	0.58	1.669E+00	1.905E-05	2.072E-05	51.15
	79.29	-----	0.97	1.741E+00	-----	Line Not Found	-----
	609.31	31	46.10*	1.112E+00	4.672E-07	5.083E-07	28.75
	665.44	-----	1.56	1.023E+00	-----	Line Not Found	-----
	768.35	-----	4.88	8.873E-01	-----	Line Not Found	-----
	806.16	-----	1.23	8.454E-01	-----	Line Not Found	-----
	934.04	-----	3.16	7.310E-01	-----	Line Not Found	-----
	1120.27	-----	15.00	6.242E-01	-----	Line Not Found	-----
	1155.18	-----	1.69	6.105E-01	-----	Line Not Found	-----
	1238.11	-----	5.92	5.846E-01	-----	Line Not Found	-----
	1280.95	-----	1.47	5.747E-01	-----	Line Not Found	-----
	1377.66	-----	4.02	5.602E-01	-----	Line Not Found	-----
	1385.30	-----	0.78	5.595E-01	-----	Line Not Found	-----
	1401.48	-----	1.39	5.583E-01	-----	Line Not Found	-----
	1407.97	-----	2.48	5.578E-01	-----	Line Not Found	-----
	1509.22	-----	2.19	5.568E-01	-----	Line Not Found	-----
	1583.22	-----	0.72	5.628E-01	-----	Line Not Found	-----
	1661.26	-----	1.15	5.753E-01	-----	Line Not Found	-----
	1729.58	-----	3.05	5.918E-01	-----	Line Not Found	-----
	1764.49	-----	15.90	6.023E-01	-----	Line Not Found	-----
	1847.41	-----	2.12	6.331E-01	-----	Line Not Found	-----
PB-214	53.17	-----	1.10	5.203E-01	-----	Line Not Found	-----
	74.81	-----	6.52	1.570E+00	-----	Line Not Found	-----
	77.11	24	11.00	1.669E+00	1.004E-06	1.069E-06	51.15
	87.19	-----	3.88	1.983E+00	-----	Line Not Found	-----
	90.13	-----	1.15	2.055E+00	-----	Line Not Found	-----
	241.92	-----	7.46	2.043E+00	-----	Line Not Found	-----
	258.94	-----	0.55	1.981E+00	-----	Line Not Found	-----
	295.09	35	19.20*	1.857E+00	7.584E-07	8.074E-07	26.03
	351.87	38	37.10	1.686E+00	4.635E-07	4.934E-07	22.38
	785.83	-----	1.09	8.674E-01	-----	Line Not Found	-----
	839.00	-----	0.59	8.122E-01	-----	Line Not Found	-----

Nuclide Type: natural

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected	Decay	Corr	1-Sigma
					uCi/GR		uCi/GR	%Error
AC-228	89.96	-----	3.40	2.051E+00	-----	Line Not Found	-----	-----
	93.35	-----	5.60	2.124E+00	-----	Line Not Found	-----	-----
	99.55	-----	1.30	2.229E+00	-----	Line Not Found	-----	-----
	105.36	-----	2.00	2.301E+00	-----	Line Not Found	-----	-----
	108.99	-----	0.67	2.335E+00	-----	Line Not Found	-----	-----
	129.03	-----	2.90	2.414E+00	-----	Line Not Found	-----	-----
	153.89	-----	0.84	2.377E+00	-----	Line Not Found	-----	-----
	209.39	25	4.10	2.168E+00	2.138E-06	2.148E-06	33.24	
	216.24	-----	0.80	2.141E+00	-----	Line Not Found	-----	-----
	270.26	-----	3.80	1.941E+00	-----	Line Not Found	-----	-----
	328.07	-----	3.50	1.756E+00	-----	Line Not Found	-----	-----
	338.42	23	12.40	1.726E+00	8.393E-07	8.431E-07	29.94	
	340.94	-----	0.52	1.718E+00	-----	Line Not Found	-----	-----
	409.62	-----	2.20	1.531E+00	-----	Line Not Found	-----	-----
	463.10	-----	4.60	1.401E+00	-----	Line Not Found	-----	-----
	562.65	-----	1.01	1.195E+00	-----	Line Not Found	-----	-----
	581.52	-----	3.00	1.160E+00	-----	Line Not Found	-----	-----
	726.63	-----	0.87	9.382E-01	-----	Line Not Found	-----	-----
	755.28	-----	1.32	9.027E-01	-----	Line Not Found	-----	-----
	772.28	-----	1.09	8.827E-01	-----	Line Not Found	-----	-----
	782.12	-----	0.59	8.716E-01	-----	Line Not Found	-----	-----
	794.79	-----	4.60	8.576E-01	-----	Line Not Found	-----	-----
	830.59	-----	0.63	8.205E-01	-----	Line Not Found	-----	-----
	835.60	-----	1.71	8.155E-01	-----	Line Not Found	-----	-----
	840.44	-----	0.94	8.108E-01	-----	Line Not Found	-----	-----
	904.29	-----	0.89	7.542E-01	-----	Line Not Found	-----	-----
	911.16	-----	29.00*	7.487E-01	-----	Line Not Found	-----	-----
	964.64	-----	5.80	7.091E-01	-----	Line Not Found	-----	-----
	968.97	19	17.40	7.062E-01	1.169E-06	1.174E-06	21.33	
	1246.60	-----	0.57	5.825E-01	-----	Line Not Found	-----	-----
	1459.19	-----	1.06	5.560E-01	-----	Line Not Found	-----	-----
	1496.00	-----	1.05	5.563E-01	-----	Line Not Found	-----	-----
	1501.44	-----	0.58	5.565E-01	-----	Line Not Found	-----	-----
	1580.30	-----	0.71	5.624E-01	-----	Line Not Found	-----	-----
	1588.23	-----	3.60	5.634E-01	-----	Line Not Found	-----	-----
	1630.47	-----	1.95	5.696E-01	-----	Line Not Found	-----	-----
	1638.10	-----	0.54	5.709E-01	-----	Line Not Found	-----	-----

Flag: "*" = Keyline

Minimum Detectable Activity Report
Sample ID : 30382

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Acquisition date : 6-JUN-2014 13:50:55

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/GR)
BE-7	3.	477.61	6.1272E-07
MN-54	2.	834.83	9.2108E-08
MN-56	1.	846.81	7.1547E-08
CO-57	15.	122.06	7.6542E-08
CO-58	0.	810.79	2.4757E-08
CO-60	3.	1332.50	1.3737E-07
SB-124	3.	602.73	7.5023E-08
SB-125	2.	427.88	1.5973E-07
CS-134	2.	604.71	6.9217E-08
CS-137	3.	661.66	9.4633E-08