66647-WES-561

0047812

TELEDYNE ISOTOPES

WESTON/WESTINGHOUSE/HANFORD

Case Narrative/Cover Sheet for Reports of Analysis and Lab Data

Date 06-22-92

TI #'s 66647 - 66655

WO # 4-6377

JUN 1992 RECEIVED OSM DMO

Comments:

There were no unusual occurences with the analysis of these samples.

Activity for Matrix Spike TI #66648 and Matrix Spike Dupplicate TI #66649

Nuclide	Activity pCi/l	Acceptable Range
Technitium-99	98.5	79. - 118.
Gross Alpha	22.4	16.8 - 28.
Gross Beta	45.2	35.2 - 55.
Strontium-90	40.	34. - 46.
Total Uranium	1.87 ug/l	1.5 - 2.2 ug/l
Tritium	1.5 E 03	1.2 - 1.8 E 03
Plutonium-239	1.09	0.9 - 1.3

Contents:

Reports of Analysis		11	Pages
TC-99	PRO-032-78	9	Pages
Gross Alpha	PRO-032-1	4	Pages
Gross Beta		-	Pages
Sr-90	PRO-032-16	9	Pages
Total U	PRO-032-89	3	Pages
Gamma	PRO-042-5	10	Pages
H-3	PRO-052-35	3	Pages
Pu-238-239	PRO-052-32	18	Pages
C-O-C		1	Pages
Other		-	Pages

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 06/19/92

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE	PAGE 1
4-6377	LL-0850-F4	02/12/92	03/16/92	

MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66647	9201L149-001	B01R87	01/25				TC-99	6.0 +-0.6 E 01		03/11			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	3.8 +-0.3 E 01		03/13			3
							SR-90	L.T. 5. E-01		03/21			3
							TOTAL U	8.1 +-1.3 E 00	UGM/LITER *	03/25			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/25			3
							GR-A	1.0 +-1.43E 00		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	L.T. 3. E 00		03/11			3
							SR-90 -	2.3 +-2.76E-01		03/21			3
							BE-7	L.T. 4. E 02		05/30			4
							K-40	L.T. 2. E 02		05/30			4
							MN-54	L.T. 1. E 01		05/30			4
							CO-58	L.T. 3. E 01		05/30			4
							FE-59	L.T. 1. E 02		05/30			4
							CO-60	L.T. 1. E 01		05/30			4
							ZN-65	L.T. 3. E 01		05/30			4
							ZR-95	L.T. 3. E 01		05/30			4
							RU-103	L.T. 1. E 02		05/30			4
							RU-106	L.T. 1. E 02		05/30			4
							I-131	L.T. 5. E 05		05/30			4
							CS-134	L.T. 1. E 01		05/30			4
							CS-137	L.T. 1. E 01		05/30			4
							BA-140	L.T. 9. E 03		05/30			4
							CE-141	L.T. 2. E 02		05/30			4
							CE-144	L.T. 1. E 02		05/30			4
							EU-152	L.T. 3. E 01		05/30			4
							EU-154	L.T. 3. E 01		05/30			4
							EU-155	L.T. 3. E 01		05/30			4
							RA-226	L.T. 2. E 02		05/30			4
							TH-228	L.T. 3. E 01		05/30			4
							TH-234	L.T. 2. E 02		05/30			4

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 06/19/92

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE
4-6377	LL-0850-F4	02/12/92	03/16/92

MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66647	9201L149-001	B01R87	01/25				H-3	1.3 +-0.1 E 05		02/24			5
							H-3	L.T. 1. E 02		02/24			5
							PU-238	L.T. 3. E-01		06/10			6
							PU-239	L.T. 1. E-01		06/10			6
							PU-238	8.6 +-19.0E-02		06/10			6
							PU-239	1.4 +-7.8 E-02		06/10			6
66648	9201L149-001	MSB01R87	01/25				TC-99	1.5 +-0.1 E 02		03/11			3
							GR-A	1.6 +-0.3 E 01		03/13			3
							GR-B	8.1 +-0.3 E 01		03/13			3
							SR-90	3.9 +-0.2 E 01		03/21			3
							TOTAL U	9.2 +-1.4 E 00	UGM/LITER *	03/25			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/25			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	L.T. 4. E 00		03/11			3
							SR-90	L.T. 7. E-01		03/21			3
							BE-7	L.T. 4. E 02		06/18			4
							K-40	L.T. 1. E 02		06/18			4
							MN-54	L.T. 9. E 00		06/18			4
							CO-58	L.T. 2. E 01		06/18			4
							FE-59	L.T. 1. E 02		06/18			4
							CO-60	L.T. 5. E 00		06/18			4
							ZN-65	L.T. 2. E 01		06/18			4
							ZR-95	L.T. 3. E 01		06/18			4
							RU-103	L.T. 8. E 01		06/18			4
							RU-106	L.T. 6. E 01		06/18			4
							I-131	L.T. 2. E 06		06/18			4
							CS-134	L.T. 7. E 00		06/18			4
							CS-137	L.T. 7. E 00		06/18			4
							BA-140	L.T. 2. E 04		06/18			4
							CE-141	L.T. 3. E 02		06/18			4

The gamma analysis of TI#66648 is a duplicate analysis of TI#66647. The other analyses of TI#66648 are matrix spike analyses of TI#66647.

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 06/19/92

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE	PAGE 3
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MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66648	9201L149-001MS B01R87		01/25				CE-144	L.T. 8. E 01		06/18			4
							RA-226	L.T. 2. E 02		06/18			4
							TH-228	L.T. 2. E 01		06/18			4
							H-3	1.2 +-0.1 E 05		02/24			5
							H-3	L.T. 1. E 02		02/24			5
							PU-238	L.T. 1. E-01		06/10			6
							PU-239	9.0 +-2.5 E-01		06/10			6
							PU-238 -	1.7 +-53.7E-03		06/10			6
							PU-239	L.T. 4. E-02		06/10			6
66649	9201L149-001MSD901R87		01/25				TC-99	1.5 +-0.1 E 02		03/11			3
							GR-A	1.9 +-0.4 E 01		03/13			3
							GR-B	8.4 +-0.4 E 01		03/13			3
							SR-90	3.8 +-0.2 E 01		03/21			3
							TOTAL U	9.0 +-1.4 E 00	UGM/LITER *	03/25			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/25			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	L.T. 4. E 00		03/11			3
							SR-90	L.T. 5. E-01		03/21			3
							BE-7	L.T. 1. E 03		06/18			4
							K-40	L.T. 3. E 02		06/18			4
							MN-54	L.T. 2. E 01		06/18			4
							CO-58	L.T. 8. E 01		06/18			4
							FE-59	L.T. 4. E 02		06/18			4
							CO-60	L.T. 3. E 01		06/18			4
							ZN-65	L.T. 7. E 01		06/18			4
							ZR-95	L.T. 1. E 02		06/18			4
							RU-103	L.T. 3. E 02		06/18			4
							RU-106	L.T. 3. E 02		06/18			4
							I-131	L.T. 5. E 06		06/18			4
							CS-134	L.T. 3. E 01		06/18			4

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 06/19/92

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE	PAGE 4
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MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66649	9201L149-001MS0B01R87		01/25				CS-137	6.10+-2.23E 01		06/18			4
							BA-140	L.T. 6. E 04		06/18			4
							CE-141	L.T. 9. E 02		06/18			4
							CE-144	L.T. 3. E 02		06/18			4
							RA-226	L.T. 6. E 02		06/18			4
							TH-228	L.T. 6. E 01		06/18			4
							H-3	1.1 +-0.1 E 05		02/24			5
							H-3	L.T. 1. E 02		02/24			5
							PU-238	L.T. 1. E-01		06/10			6
							PU-239	1.1 +-0.2 E 00		06/10			6
							PU-238 -	3.8 +-51.3E-03		06/10			6
							PU-239	L.T. 6. E-02		06/10			6
66650	9201L149-003	B01R24	01/24				TC-99	L.T. 4. E 00		03/11			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	9.5 +-1.7 E 00		03/13			3
							SR-90	L.T. 7. E-01		03/21			3
							TOTAL U	2.3 +-0.3 E 00	UGM/LITER *	03/24			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/24			3
							GR-A -	1.6 +-12.4E-01		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	3.8 +-26.5E-01		03/11			3
							SR-90	2.2 +-4.27E-01		03/21			3
							BE-7	L.T. 3. E 02		05/30			4
							K-40	L.T. 1. E 02		05/30			4
							MN-54	L.T. 1. E 01		05/30			4
							CO-58	L.T. 2. E 01		05/30			4
							FE-59	L.T. 1. E 02		05/30			4
							CO-60	L.T. 9. E 00		05/30			4
							ZN-65	L.T. 2. E 01		05/30			4
							ZR-95	L.T. 3. E 01		05/30			4
							RU-103	L.T. 7. E 01		05/30			4

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 06/19/92

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE	PAGE 5
4-6377	LL-0850-F4	02/12/92	03/16/92	

MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66650	9201L149-003	B01R24	01/24				RU-106	L.T. 9. E 01		05/30			4
							I-131	L.T. 4. E 05		05/30			4
							CS-134	L.T. 1. E 01		05/30			4
							CS-137	L.T. 8. E 00		05/30			4
							BA-140	L.T. 8. E 03		05/30			4
							CE-141	L.T. 1. E 02		05/30			4
							CE-144	L.T. 5. E 01		05/30			4
							EU-152	L.T. 2. E 01		05/30			4
							EU-154	L.T. 3. E 01		05/30			4
							EU-155	L.T. 2. E 01		05/30			4
							RA-226	L.T. 1. E 02		05/30			4
							TH-228	L.T. 2. E 01		05/30			4
							TH-234	L.T. 1. E 02		05/30			4
							H-3	2.8 +-0.2 E 03		02/24			5
							H-3	L.T. 1. E 02		02/24			5
							PU-238	L.T. 4. E-01		06/10			6
							PU-239	L.T. 2. E-01		06/10			6
							PU-238	4.7 +-21.2E-02		06/10			6
							PU-239	4.3 +-96.1E-03		06/10			6
66651	9201L149-006	B01R46	01/24				TC-99	5.0 +-0.7 E 01		03/11			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	2.9 +-0.2 E 01		03/13			3
							SR-90	L.T. 6. E-01		03/21			3
							TOTAL U	1.9 +-0.3 E 00	UGM/LITER *	03/24			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/24			3
							GR-A	1.4 +-11.4E-01		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	L.T. 4. E 00		03/11			3
							SR-90	3.0 +-4.01E-01		03/21			3
							BE-7	L.T. 3. E 02		05/30			4
							K-40	L.T. 1. E 02		05/30			4

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 06/19/92

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE	PAGE 6
4-6377	LL-0850-F4	02/12/92	03/16/92	

MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66651	9201L149-006	B01R46	01/24				MN-54	L.T. 9. E 00		05/30			4
							CO-58	L.T. 2. E 01		05/30			4
							FE-59	L.T. 9. E 01		05/30			4
							CO-60	L.T. 8. E 00		05/30			4
							ZN-65	L.T. 2. E 01		05/30			4
							ZR-95	L.T. 3. E 01		05/30			4
							RU-103	L.T. 7. E 01		05/30			4
							RU-106	L.T. 8. E 01		05/30			4
							I-131	L.T. 5. E 05		05/30			4
							CS-134	L.T. 8. E 00		05/30			4
							CS-137	L.T. 8. E 00		05/30			4
							BA-140	L.T. 8. E 03		05/30			4
							CE-141	L.T. 2. E 02		05/30			4
							CE-144	L.T. 8. E 01		05/30			4
							EU-152	L.T. 2. E 01		05/30			4
							EU-154	L.T. 2. E 01		05/30			4
							EU-155	L.T. 2. E 01		05/30			4
							RA-226	L.T. 2. E 02		05/30			4
							TH-228	L.T. 2. E 01		05/30			4
							TH-234	L.T. 2. E 02		05/30			4
							H-3	4.7 +-0.9 E 02		02/24			5
							H-3	L.T. 1. E 02		02/24			5
							PU-238	L.T. 3. E-01		06/11			6
							PU-239	L.T. 1. E-01		06/11			6
							PU-238	5.4 +-19.1E-02		06/11			6
							PU-239	2.7 +-8.1 E-02		06/11			6
66652	9201L149-008	B01R36	01/25				TC-99	7.7 +-0.8 E 01		03/11			3
							GR-A	3.1 +-1.8 E 00		03/13			3
							GR-B	3.7 +-0.1 E 02		03/13			3
							SR-90	L.T. 6. E-01		03/21			3
							TOTAL U	9.0 +-1.4 E 00	UGM/LITER *	03/24			3

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

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WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE	PAGE 7
4-6377	LL-0850-F4	02/12/92	03/16/92	

MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (UGM/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66652	9201L149-008	B01R36	01/25				TOTAL U	L.T. 5. E-02		03/24			3
							GR-A	L.T. 2. E 00	PCI/LITER *	03/13			3
							GR-B	L.T. 2. E 00	PCI/LITER *	03/13			3
							TC-99	L.T. 4. E 00	PCI/LITER *	03/11			3
							SR-90 -	1.7 +-3.15E-01	PCI/LITER *	03/21			3
							BE-7	L.T. 5. E 02	PCI/LITER *	05/30			4
							K-40	L.T. 3. E 02	PCI/LITER *	05/30			4
							MN-54	L.T. 1. E 01	PCI/LITER *	05/30			4
							CO-58	L.T. 3. E 01	PCI/LITER *	05/30			4
							FE-59	L.T. 1. E 02	PCI/LITER *	05/30			4
							CO-60	L.T. 1. E 01	PCI/LITER *	05/30			4
							ZN-65	L.T. 3. E 01	PCI/LITER *	05/30			4
							ZR-95	L.T. 4. E 01	PCI/LITER *	05/30			4
							RU-103	L.T. 1. E 02	PCI/LITER *	05/30			4
							RU-106	L.T. 1. E 02	PCI/LITER *	05/30			4
							I-131	L.T. 6. E 05	PCI/LITER *	05/30			4
							CS-134	L.T. 1. E 01	PCI/LITER *	05/30			4
							CS-137	L.T. 1. E 01	PCI/LITER *	05/30			4
							BA-140	L.T. 1. E 04	PCI/LITER *	05/30			4
							CE-141	L.T. 2. E 02	PCI/LITER *	05/30			4
							CE-144	L.T. 8. E 01	PCI/LITER *	05/30			4
							EU-152	L.T. 4. E 01	PCI/LITER *	05/30			4
							EU-154	L.T. 5. E 01	PCI/LITER *	05/30			4
							EU-155	L.T. 3. E 01	PCI/LITER *	05/30			4
							RA-226	L.T. 2. E 02	PCI/LITER *	05/30			4
							TH-228	L.T. 2. E 01	PCI/LITER *	05/30			4
							TH-234	L.T. 2. E 02	PCI/LITER *	05/30			4
							H-3	1.2 +-0.1 E 05	PCI/LITER *	02/22			5
							H-3	L.T. 1. E 02	PCI/LITER *	02/22			5
							PU-238	L.T. 3. E-01	PCI/LITER *	06/11			6
							PU-239	L.T. 9. E-02	PCI/LITER *	06/11			6
							PU-238	5.2 +-18.7E-02	PCI/LITER *	06/11			6

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

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4-6377	LL-0850-F4	02/12/92	03/16/92	

MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66652	9201L149-008	B01R36	01/25				PU-239	2.4 +-7.2 E-02		06/11			6
66653	9201L149-011	B01R38	01/25				TC-99	4.0 +-0.6 E 01		03/11			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	2.8 +-0.2 E 01		03/13			3
							SR-90	L.T. 5. E-01		03/21			3
							TOTAL U	2.1 +-0.3 E 00	UGM/LITER *	03/24			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/24			3
							GR-A	1.4 +-11.3E-01		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	L.T. 4. E 00		03/11			3
							SR-90 -	2.4 +-32.7E-02		03/21			3
							BE-7	L.T. 4. E 02		05/30			4
							K-40	L.T. 3. E 02		05/30			4
							MN-54	L.T. 1. E 01		05/30			4
							CO-58	L.T. 3. E 01		05/30			4
							FE-59	L.T. 1. E 02		05/30			4
							CO-60	L.T. 1. E 01		05/30			4
							ZN-65	L.T. 3. E 01		05/30			4
							ZR-95	L.T. 4. E 01		05/30			4
							RU-103	L.T. 9. E 01		05/30			4
							RU-106	L.T. 1. E 02		05/30			4
							I-131	L.T. 5. E 05		05/30			4
							CS-134	L.T. 1. E 01		05/30			4
							CS-137	L.T. 1. E 01		05/30			4
							BA-140	L.T. 8. E 03		05/30			4
							CE-141	L.T. 2. E 02		05/30			4
							CE-144	L.T. 7. E 01		05/30			4
							EU-152	L.T. 3. E 01		05/30			4
							EU-154	L.T. 3. E 01		05/30			4
							EU-155	L.T. 3. E 01		05/30			4
							RA-226	L.T. 2. E 02		05/30			4

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 06/19/92

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE
4-6377	LL-0850-F4	02/12/92	03/16/92

MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66653	9201L149-011	B01R38	01/25				TH-228	L.T. 2. E 01		05/30			4
							TH-234	L.T. 2. E 02		05/30			4
							H-3	4.2 +-0.2 E 03		02/22			5
							H-3	L.T. 1. E 02		02/22			5
							PU-238	L.T. 5. E-01		06/11			6
							PU-239	L.T. 2. E-01		06/11			6
							PU-238 -	9.2 +-18.7E-02		06/11			6
							PU-239	1.8 +-9.6 E-02		06/11			6
66654	9201L149-013	B01QZI	01/24				TC-99	8.5 +-0.8 E 01		03/11			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	5.0 +-0.3 E 01		03/13			3
							SR-90	L.T. 4. E-01		03/21			3
							TOTAL U	1.4 +-0.2 E 00	UGM/LITER *	03/24			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/24			3
							GR-A -	3.9 +-9.4IE-01		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	L.T. 3. E 00		03/11			3
							SR-90	4.6 +-28.IE-02		03/21			3
							BE-7	L.T. 1. E 02		05/31			4
							K-40	L.T. 6. E 01		05/31			4
							MN-54	L.T. 4. E 00		05/31			4
							CO-58	L.T. 9. E 00		05/31			4
							FE-59	L.T. 4. E 01		05/31			4
							CO-60	L.T. 3. E 00		05/31			4
							ZN-65	L.T. 8. E 00		05/31			4
							ZR-95	L.T. 1. E 01		05/31			4
							RU-103	L.T. 3. E 01		05/31			4
							RU-106	L.T. 3. E 01		05/31			4
							I-131	L.T. 2. E 05		05/31			4
							CS-134	L.T. 3. E 00		05/31			4
							CS-137	L.T. 3. E 00		05/31			4

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 06/19/92

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE	PAGE 10
4-6377	LL-0850-F4	02/12/92	03/16/92	

MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66654	9201L149-013	B01QZ1	01/24				BA-140	L.T. 3. E 03		05/31			4
							CE-141	L.T. 8. E 01		05/31			4
							CE-144	L.T. 3. E 01		05/31			4
							EU-152	L.T. 1. E 01		05/31			4
							EU-154	L.T. 1. E 01		05/31			4
							EU-155	L.T. 1. E 01		05/31			4
							RA-226	L.T. 7. E 01		05/31			4
							TH-228	L.T. 7. E 00		05/31			4
							TH-234	L.T. 7. E 01		05/31			4
							H-3	1.4 +-0.1 E 03		02/22			5
							H-3	L.T. 1. E 02		02/22			5
							PU-238	L.T. 8. E-01		06/11			6
							PU-239	L.T. 1. E-01		06/11			6
							PU-238	8.9 +-38.8E-02		06/11			6
							PU-239	2.7 +-8.0 E-02		06/11			6
66655	9201L149-015	B01R40	01/25				TC-99	3.2 +-0.5 E 01		03/11			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	2.0 +-0.2 E 01		03/13			3
							SR-90	L.T. 4. E-01		03/21			3
							TOTAL U	2.1 +-0.3 E 00	UGM/LITER *	03/24			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/24			3
							GR-A -	4.1 +-9.90E-01		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	L.T. 3. E 00		03/11			3
							SR-90	2.1 +-26.0E-02		03/21			3
							BE-7	L.T. 4. E 02		06/05			4
							K-40	L.T. 2. E 02		06/05			4
							MN-54	L.T. 1. E 01		06/05			4
							CO-58	L.T. 3. E 01		06/05			4
							FE-59	L.T. 1. E 02		06/05			4
							CO-60	L.T. 8. E 00		06/05			4

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 06/19/92

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE	PAGE 11
4-6377	LL-0850-F4	02/12/92	03/16/92	

MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66655	9201L149-015	B01R40	01/25				ZN-65	L.T. 3. E 01		06/05			4
							ZR-95	L.T. 3. E 01		06/05			4
							RU-103	L.T. 9. E 01		06/05			4
							RU-106	L.T. 1. E 02		06/05			4
							I-131	L.T. 8. E 05		06/05			4
							CS-134	L.T. 1. E 01		06/05			4
							CS-137	L.T. 1. E 01		06/05			4
							BA-140	L.T. 1. E 04		06/05			4
							CE-141	L.T. 3. E 02		06/05			4
							CE-144	L.T. 1. E 02		06/05			4
							RA-226	L.T. 2. E 02		06/05			4
							TH-228	L.T. 2. E 01		06/05			4
							H-3	1.9 +-0.1 E 03		02/22			5
							H-3	L.T. 1. E 02		02/22			5
							PU-238	L.T. 8. E-01		06/11			6
							PU-239	L.T. 2. E-01		06/11			6
							PU-238 -	1.9 +-38.7E-02		06/11			6
							PU-239	3.9 +-87.4E-03		06/11			6

LAST PAGE OF REPORT

J Guenther
APPROVED BY J. GUENTHER 06/19/92

SEND 1 COPIES TO WE884S MS JOSIE KING

2 - GAS LAB. 3 - RADIO CHEMISTRY LAB. 4 - GE(LI) GAMMA SPEC LAB. 5 - TRITIUM GAS/L.S. LAB. 6 - ALPHA SPEC LAB.

4

WESTON Analytics Use Only

Custody Transfer Record/Lab Work Request

WESTON

Page ____ of ____

Client: Weston
Est. Final Proj. Sampling Date:
Work Order #: 6168-02-01
Project Contact/Phone #:
AD Project Manager: Josie King
QC: CLP Del: CLP TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #		
#/Type Container	Liquid	
	Solid	
Volume	Liquid	
	Solid	
Preservatives		

ANALYSES REQUESTED →

ORGANIC							INORG	
VOA	BNA	Pest/PCB	Herb	Radio Chem			Metal	CN

WESTON Analytics Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ISUB	
	B01R87			W	1-25-92		✓	9201L149-001.
	24				1-24-92			003.
	46				1			006.
	36				1-25-92			008.
	38				1			011.
	B01Q21				1-24-92			013.
	B01R40				1-25-92			015

Radio Chem: Gross alpha/Beta, TC-99, SR-90, CS-137, Co-60, Pu-238, Pu-239/240
Total Uranium Tritium.

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

Run ① MS/MSD

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___ Airbill # _____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Relinquished by	Received by	Date	Time
M Jason	Fed Ex		
	S. Jackson	2-21-92	1200

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

RFW 21-21-001/A-7/91 ____ L372 ____ L373 ____ L375 ____ L377 ____ L378 Ref# _____ Cooler# _____ 381-596a

Total U Fluorimetric Raw Data Addendum

92011149

Requested Data FAX 11/20/92 Pool to Nulton

Page 1

#6. Total uranium Fluorimetric raw data

SUMMARY DATA
REPORT

DEC 1992
RECEIVED
OSM DMO

RADIOCHEMICAL WORK SHEET - GROSS BETA/GROSS ALPHA

CUSTOMER WWH COLLECTION DATE _____ SAMPLE TYPE WO

ANALYST KD/HJ PREPARATION DATE _____ ALIQUOT 6 UNITS ml

COUNTER A- Scintrex COUNT DATE: START 3/25/92 STOP _____

Dil I WF WU

SAMPLE NUMBER	ANALYSIS	WEIGHT OF MOUNT (grams)	Sequence Number	N (counts)	ΔT (min)	Bkg. (cpm)		VOLUME OR WEIGHT (gms) WET | ASH | %	ACTIVITY
66647	TOTAL U		10:1	0	.163	.301			8.1 ± 1.3 E 00
↓	↓								L.T. 5. E-02
66648			10:1	0	.185	.323			9.2 ± 1.4 E 00
↓									L.T. 5. E-02
66649			10:1	0	.181	.319			9.0 ± 1.4 E 00
↓	↓								L.T. 5. E-02
									. E
									. E
									. E
									. E

UNITS pCi/L CODE L

CALC. BY KD. DATE 3/26/92

CHECKED BY HJ DATE 3/26

DATE ENTERED 3/26/92

SUMMARY DATA REPORT

FORM IWL-3B
Revised 06/15/81

RADIOCHEMICAL WORK SHEET - GROSS BETA/GROSS ALPHA

CUSTOMER WWTH COLLECTION DATE _____ SAMPLE TYPE WO

ANALYST KD/HJ PREPARATION DATE _____ ALIQUOT 6 UNITS ml

COUNTER A- Scintrex COUNT DATE: START 3/24/92 STOP _____

SAMPLE NUMBER	ANALYSIS	WEIGHT OF MOUNT (grams)	Sequence Number (Dil.)	N (counts) (I)	ΔT (min) (WF)	Bkg. (cpm) (WU)	VOLUME OR WEIGHT (gms) WET ASH 1%	ACTIVITY
66650	TOTAL 4		2:1	0	.179	.286		2.3 ± 0.3 E 00
↓	↓							L.T. 5. E-02
66651	↓		2:1	0	.154	.265		1.9 ± 0.3 E 00
↓	↓							L.T. 5. E-02
66652	↓		2:1	0	.665	.766		9.0 ± 1.4 E 00
↓	↓							L.T. 5. E-02
66653	↓		2:1	0	.159	.265		2.1 ± 0.3 E 00
↓	↓							L.T. 5. E-02
66654	↓		2:1	0	.122	.240		1.4 ± 0.2 E 00
↓	↓							L.T. 5. E-02

UNITS µg/L CODE L

CALC. BY KD. DATE 3/25/92

CHECKED BY HJ DATE 3/25

DATE ENTERED 3/25/92

SUMMARY DATA REPORT

FORM IWL-3B
Revised 06/15/81

RADIOCHEMICAL WORK SHEET - GROSS BETA/GROSS ALPHA

CUSTOMER WWH COLLECTION DATE _____ SAMPLE TYPE WO

ANALYST KD/HJ PREPARATION DATE _____ ALIQUOT 6 UNITS ml

COUNTER A-Scintrex COUNT DATE: START 3/24/92 STOP _____

Dil I WF WU

SAMPLE NUMBER	ANALYSIS	WEIGHT OF MOUNT (grams)	Sequence Number	N (counts)	ΔT (min)	Bkg. (cpm)		VOLUME OR WEIGHT (gms) WET ASH 1%	ACTIVITY
66655	TOTAL U		2:1	0	.160	.264			2.1 ± 0.3 E 00
↓	↓								L.T. 5. E-02
									. E
									. E
									. E
									. E
									. E
									. E
									. E
									. E

UNITS µg/L CODE L

SUMMARY DATA REPORT

CALC. BY KD. DATE 3/25/92

CHECKED BY HJ DATE 3/25

DATE ENTERED 3/25/92

FORM IWL-3B
Revised 06/15/81

JUN 22 1992

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 06/19/92

PAGE 1

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE
4-6377	LL-0850-F4	02/12/92	03/16/92

MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66647	9201L149-001	B01R87	01/25				TC-99	6.0 +-0.6 E 01		03/11			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	3.8 +-0.3 E 01		03/13			3
							SR-90	L.T. 5. E-01		03/21			3
							TOTAL U	8.1 +-1.3 E 00	UGM/LITER *	03/25			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/25			3
							GR-A	1.0 +-1.43E 00		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	L.T. 3. E 00		03/11			3
							SR-90 -	2.3 +-2.76E-01		03/21			3
							BE-7	L.T. 4. E 02		05/30			4
							K-40	L.T. 2. E 02		05/30			4
							MN-54	L.T. 1. E 01		05/30			4
							CO-58	L.T. 3. E 01		05/30			4
							FE-59	L.T. 1. E 02		05/30			4
							CO-60	L.T. 1. E 01		05/30			4
							ZN-65	L.T. 3. E 01		05/30			4
							ZR-95	L.T. 3. E 01		05/30			4
							RU-103	L.T. 1. E 02		05/30			4
							RU-106	L.T. 1. E 02		05/30			4
							I-131	L.T. 5. E 05		05/30			4
							CS-134	L.T. 1. E 01		05/30			4
							CS-137	L.T. 1. E 01		05/30			4
							BA-140	L.T. 9. E 03		05/30			4
							CE-141	L.T. 2. E 02		05/30			4
							CE-144	L.T. 1. E 02		05/30			4
							EU-152	L.T. 3. E 01		05/30			4
							EU-154	L.T. 3. E 01		05/30			4
							EU-155	L.T. 3. E 01		05/30			4
							RA-226	L.T. 2. E 02		05/30			4
							TH-228	L.T. 3. E 01		05/30			4
							TH-234	L.T. 2. E 02		05/30			4

SUMMARY DATA REPORT

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 06/19/92

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE
4-6377	LL-0850-F4	02/12/92	03/16/92

MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66647	9201L149-001	B01R87	01/25				H-3	1.3 +-0.1 E 05		02/24			5
							H-3	L.T. 1. E 02		02/24			5
							PU-238	L.T. 3. E-01		06/10			6
							PU-239	L.T. 1. E-01		06/10			6
							PU-238	8.6 +-19.0E-02		06/10			6
							PU-239	1.4 +-7.8 E-02		06/10			6
66648	9201L149-001	MSB01R87	01/25				TC-99	1.5 +-0.1 E 02		03/11			3
							GR-A	1.6 +-0.3 E 01		03/13			3
							GR-B	8.1 +-0.3 E 01		03/13			3
							SR-90	3.9 +-0.2 E 01		03/21			3
							TOTAL U	9.2 +-1.4 E 00	UGM/LITER *	03/25			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/25			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	L.T. 4. E 00		03/11			3
							SR-90	L.T. 7. E-01		03/21			3
							BE-7	L.T. 4. E 02		06/18			4
							K-40	L.T. 1. E 02		06/18			4
							MN-54	L.T. 9. E 00		06/18			4
							CO-58	L.T. 2. E 01		06/18			4
							FE-59	L.T. 1. E 02		06/18			4
							CO-60	L.T. 5. E 00		06/18			4
							ZN-65	L.T. 2. E 01		06/18			4
							ZR-95	L.T. 3. E 01		06/18			4
							RU-103	L.T. 8. E 01		06/18			4
							RU-106	L.T. 6. E 01		06/18			4
							I-131	L.T. 2. E 06		06/18			4
							CS-134	L.T. 7. E 00		06/18			4
							CS-137	L.T. 7. E 00		06/18			4
							BA-140	L.T. 2. E 04		06/18			4
							CE-141	L.T. 3. E 02		06/18			4

The gamma analysis of TI#66648 is a duplicate analysis of TI#66647. The other analyses of TI#66648 are matrix spike analyses of TI#66647.

SUMMARY DATA REPORT

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 06/19/92

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE
4-6377	LL-0850-F4	02/12/92	03/16/92

MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66648	9201L149-001MS B01R87		01/25				CE-144	L.T. 8. E 01		06/18			4
							RA-226	L.T. 2. E 02		06/18			4
							TH-228	L.T. 2. E 01		06/18			4
							H-3	1.2 +-0.1 E 05		02/24			5
							H-3	L.T. 1. E 02		02/24			5
							PU-238	L.T. 1. E-01		06/10			6
							PU-239	9.0 +-2.5 E-01		06/10			6
							PU-238 -	1.7 +-53.7E-03		06/10			6
							PU-239	L.T. 4. E-02		06/10			6
66649	9201L149-001MSD901R87		01/25				TC-99	1.5 +-0.1 E 02		03/11			3
							GR-A	1.9 +-0.4 E 01		03/13			3
							GR-B	8.4 +-0.4 E 01		03/13			3
							SR-90	3.8 +-0.2 E 01		03/21			3
							TOTAL U	9.0 +-1.4 E 00	UGM/LITER *	03/25			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/25			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	L.T. 4. E 00		03/11			3
							SR-90	L.T. 5. E-01		03/21			3
							BE-7	L.T. 1. E 03		06/18			4
							K-40	L.T. 3. E 02		06/18			4
							MN-54	L.T. 2. E 01		06/18			4
							CO-58	L.T. 8. E 01		06/18			4
							FE-59	L.T. 4. E 02		06/18			4
							CO-60	L.T. 3. E 01		06/18			4
							ZN-65	L.T. 7. E 01		06/18			4
							ZR-95	L.T. 1. E 02		06/18			4
							RU-103	L.T. 3. E 02		06/18			4
							RU-106	L.T. 3. E 02		06/18			4
							I-131	L.T. 5. E 06		06/18			4
							CS-134	L.T. 3. E 01		06/18			4

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MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66649	9201L149-001MSDB01R87		01/25				CS-137	6.10+-2.23E 01		06/18			4
							BA-140	L.T. 6. E 04		06/18			4
							CE-141	L.T. 9. E 02		06/18			4
							CE-144	L.T. 3. E 02		06/18			4
							RA-226	L.T. 6. E 02		06/18			4
							TH-228	L.T. 6. E 01		06/18			4
							H-3	1.1 +-0.1 E 05		02/24			5
							H-3	L.T. 1. E 02		02/24			5
							PU-238	L.T. 1. E-01		06/10			6
							PU-239	1.1 +-0.2 E 00		06/10			6
							PU-238 -	3.8 +-51.3E-03		06/10			6
							PU-239	L.T. 6. E-02		06/10			6
66650	9201L149-003	B01R24	01/24				TC-99	L.T. 4. E 00		03/11			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	9.5 +-1.7 E 00		03/13			3
							SR-90	L.T. 7. E-01		03/21			3
							TOTAL U	2.3 +-0.3 E 00	UGM/LITER *	03/24			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/24			3
							GR-A -	1.6 +-12.4E-01		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	3.8 +-26.5E-01		03/11			3
							SR-90	2.2 +-4.27E-01		03/21			3
							BE-7	L.T. 3. E 02		05/30			4
							K-40	L.T. 1. E 02		05/30			4
							MN-54	L.T. 1. E 01		05/30			4
							CO-58	L.T. 2. E 01		05/30			4
							FE-59	L.T. 1. E 02		05/30			4
							CO-60	L.T. 9. E 00		05/30			4
							ZN-65	L.T. 2. E 01		05/30			4
							ZR-95	L.T. 3. E 01		05/30			4
							RU-103	L.T. 7. E 01		05/30			4

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MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66650	9201L149-003	B01R24	01/24				RU-106	L.T. 9. E 01		05/30			4
							I-131	L.T. 4. E 05		05/30			4
							CS-134	L.T. 1. E 01		05/30			4
							CS-137	L.T. 8. E 00		05/30			4
							BA-140	L.T. 8. E 03		05/30			4
							CE-141	L.T. 1. E 02		05/30			4
							CE-144	L.T. 5. E 01		05/30			4
							EU-152	L.T. 2. E 01		05/30			4
							EU-154	L.T. 3. E 01		05/30			4
							EU-155	L.T. 2. E 01		05/30			4
							RA-226	L.T. 1. E 02		05/30			4
							TH-228	L.T. 2. E 01		05/30			4
							TH-234	L.T. 1. E 02		05/30			4
							H-3	2.8 +-0.2 E 03		02/24			5
							H-3	L.T. 1. E 02		02/24			5
							PU-238	L.T. 4. E-01		06/10			6
							PU-239	L.T. 2. E-01		06/10			6
							PU-238	4.7 +-21.2E-02		06/10			6
							PU-239	4.3 +-96.1E-03		06/10			6
66651	9201L149-006	B01R46	01/24				TC-99	5.0 +-0.7 E 01		03/11			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	2.9 +-0.2 E 01		03/13			3
							SR-90	L.T. 6. E-01		03/21			3
							TOTAL U	1.9 +-0.3 E 00	UGM/LITER *	03/24			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/24			3
							GR-A	1.4 +-11.4E-01		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	L.T. 4. E 00		03/11			3
							SR-90	3.0 +-4.01E-01		03/21			3
							BE-7	L.T. 3. E 02		05/30			4
							K-40	L.T. 1. E 02		05/30			4

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REPORT OF ANALYSIS

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MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66651	9201L149-006	B01R46	01/24				MN-54	L.T. 9. E 00		05/30			4
							CO-58	L.T. 2. E 01		05/30			4
							FE-59	L.T. 9. E 01		05/30			4
							CO-60	L.T. 8. E 00		05/30			4
							ZN-65	L.T. 2. E 01		05/30			4
							ZR-95	L.T. 3. E 01		05/30			4
							RU-103	L.T. 7. E 01		05/30			4
							RU-106	L.T. 8. E 01		05/30			4
							I-131	L.T. 5. E 05		05/30			4
							CS-134	L.T. 8. E 00		05/30			4
							CS-137	L.T. 8. E 00		05/30			4
							BA-140	L.T. 8. E 03		05/30			4
							CE-141	L.T. 2. E 02		05/30			4
							CE-144	L.T. 8. E 01		05/30			4
							EU-152	L.T. 2. E 01		05/30			4
							EU-154	L.T. 2. E 01		05/30			4
							EU-155	L.T. 2. E 01		05/30			4
							RA-226	L.T. 2. E 02		05/30			4
							TH-228	L.T. 2. E 01		05/30			4
							TH-234	L.T. 2. E 02		05/30			4
							H-3	4.7 +-0.9 E 02		02/24			5
							H-3	L.T. 1. E 02		02/24			5
							PU-238	L.T. 3. E-01		06/11			6
							PU-239	L.T. 1. E-01		06/11			6
							PU-238	5.4 +-19.1E-02		06/11			6
							PU-239	2.7 +-8.1 E-02		06/11			6
66652	9201L149-008	B01R36	01/25				TC-99	7.7 +-0.8 E 01		03/11			3
							GR-A	3.1 +-1.3 E 00		03/13			3
							GR-B	3.7 +-0.1 E 02		03/13			3
							SR-90	L.T. 6. E-01		03/21			3
							TOTAL U	9.0 +-1.4 E 00	UGM/LITER *	03/24			3

SUMMARY DATA REPORT

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

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MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (UGM/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66652	9201L149-008	B01R36	01/25				TOTAL U	L.T. 5. E-02		03/24			3
							GR-A	L.T. 2. E 00	PCI/LITER *	03/13			3
							GR-B	L.T. 2. E 00	PCI/LITER *	03/13			3
							TC-99	L.T. 4. E 00	PCI/LITER *	03/11			3
							SR-90 -	1.7 +-3.15E-01	PCI/LITER *	03/21			3
							BE-7	L.T. 5. E 02	PCI/LITER *	05/30			4
							K-40	L.T. 3. E 02	PCI/LITER *	05/30			4
							MN-54	L.T. 1. E 01	PCI/LITER *	05/30			4
							CO-58	L.T. 3. E 01	PCI/LITER *	05/30			4
							FE-59	L.T. 1. E 02	PCI/LITER *	05/30			4
							CO-60	L.T. 1. E 01	PCI/LITER *	05/30			4
							ZN-65	L.T. 3. E 01	PCI/LITER *	05/30			4
							ZR-95	L.T. 4. E 01	PCI/LITER *	05/30			4
							RU-103	L.T. 1. E 02	PCI/LITER *	05/30			4
							RU-106	L.T. 1. E 02	PCI/LITER *	05/30			4
							I-131	L.T. 6. E 05	PCI/LITER *	05/30			4
							CS-134	L.T. 1. E 01	PCI/LITER *	05/30			4
							CS-137	L.T. 1. E 01	PCI/LITER *	05/30			4
							BA-140	L.T. 1. E 04	PCI/LITER *	05/30			4
							CE-141	L.T. 2. E 02	PCI/LITER *	05/30			4
							CE-144	L.T. 8. E 01	PCI/LITER *	05/30			4
							EU-152	L.T. 4. E 01	PCI/LITER *	05/30			4
							EU-154	L.T. 5. E 01	PCI/LITER *	05/30			4
							EU-155	L.T. 3. E 01	PCI/LITER *	05/30			4
							RA-226	L.T. 2. E 02	PCI/LITER *	05/30			4
							TH-228	L.T. 2. E 01	PCI/LITER *	05/30			4
							TH-234	L.T. 2. E 02	PCI/LITER *	05/30			4
							H-3	1.2 +-0.1 E 05	PCI/LITER *	02/22			5
							H-3	L.T. 1. E 02	PCI/LITER *	02/22			5
							PU-238	L.T. 3. E-01	PCI/LITER *	06/11			6
							PU-239	L.T. 9. E-02	PCI/LITER *	06/11			6
							PU-238	5.2 +-18.7E-02	PCI/LITER *	06/11			6

SUMMARY DATA REPORT

TELEDYNE ISOTOPES

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MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66652	9201L149-008	B01R36	01/25				PU-239	2.4 +-7.2 E-02		06/11			6
66653	9201L149-011	B01R38	01/25				TC-99	4.0 +-0.6 E 01		03/11			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	2.8 +-0.2 E 01		03/13			3
							SR-90	L.T. 5. E-01		03/21			3
							TOTAL U	2.1 +-0.3 E 00	UGM/LITER *	03/24			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/24			3
							GR-A	1.4 +-11.3E-01		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	L.T. 4. E 00		03/11			3
							SR-90 -	2.4 +-32.7E-02		03/21			3
							BE-7	L.T. 4. E 02		05/30			4
							K-40	L.T. 3. E 02		05/30			4
							MN-54	L.T. 1. E 01		05/30			4
							CO-58	L.T. 3. E 01		05/30			4
							FE-59	L.T. 1. E 02		05/30			4
							CO-60	L.T. 1. E 01		05/30			4
							ZN-65	L.T. 3. E 01		05/30			4
							ZR-95	L.T. 4. E 01		05/30			4
							RU-103	L.T. 9. E 01		05/30			4
							RU-106	L.T. 1. E 02		05/30			4
							I-131	L.T. 5. E 05		05/30			4
							CS-134	L.T. 1. E 01		05/30			4
							CS-137	L.T. 1. E 01		05/30			4
							BA-140	L.T. 8. E 03		05/30			4
							CE-141	L.T. 2. E 02		05/30			4
							CE-144	L.T. 7. E 01		05/30			4
							EU-152	L.T. 3. E 01		05/30			4
							EU-154	L.T. 3. E 01		05/30			4
							EU-155	L.T. 3. E 01		05/30			4
							RA-226	L.T. 2. E 02		05/30			4

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MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66653	9201L149-011	B01R38	01/25				TH-228	L.T. 2. E 01		05/30			4
							TH-234	L.T. 2. E 02		05/30			4
							H-3	4.2 +-0.2 E 03		02/22			5
							H-3	L.T. 1. E 02		02/22			5
							PU-238	L.T. 5. E-01		06/11			6
							PU-239	L.T. 2. E-01		06/11			6
							PU-238 -	9.2 +-18.7E-02		06/11			6
							PU-239	1.8 +-9.6 E-02		06/11			6
66654	9201L149-013	B01QZ1	01/24				TC-99	8.5 +-0.8 E 01		03/11			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	5.0 +-0.3 E 01		03/13			3
							SR-90	L.T. 4. E-01		03/21			3
							TOTAL U	1.4 +-0.2 E 00	UGM/LITER *	03/24			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/24			3
							GR-A -	3.9 +-9.41E-01		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	L.T. 3. E 00		03/11			3
							SR-90	4.6 +-28.1E-02		03/21			3
							BE-7	L.T. 1. E 02		05/31			4
							K-40	L.T. 6. E 01		05/31			4
							MN-54	L.T. 4. E 00		05/31			4
							CO-58	L.T. 9. E 00		05/31			4
							FE-59	L.T. 4. E 01		05/31			4
							CO-60	L.T. 3. E 00		05/31			4
							ZN-65	L.T. 8. E 00		05/31			4
							ZR-95	L.T. 1. E 01		05/31			4
							RU-103	L.T. 3. E 01		05/31			4
							RU-106	L.T. 3. E 01		05/31			4
							I-131	L.T. 2. E 05		05/31			4
							CS-134	L.T. 3. E 00		05/31			4
							CS-137	L.T. 3. E 00		05/31			4

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MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66654	9201L149-013	B01QZ1	01/24				BA-140	L.T. 3. E 03		05/31			4
							CE-141	L.T. 8. E 01		05/31			4
							CE-144	L.T. 3. E 01		05/31			4
							EU-152	L.T. 1. E 01		05/31			4
							EU-154	L.T. 1. E 01		05/31			4
							EU-155	L.T. 1. E 01		05/31			4
							RA-226	L.T. 7. E 01		05/31			4
							TH-228	L.T. 7. E 00		05/31			4
							TH-234	L.T. 7. E 01		05/31			4
							H-3	1.4 +-0.1 E 03		02/22			5
							H-3	L.T. 1. E 02		02/22			5
							PU-238	L.T. 8. E-01		06/11			6
							PU-239	L.T. 1. E-01		06/11			6
							PU-238	8.9 +-38.8E-02		06/11			6
							PU-239	2.7 +-8.0 E-02		06/11			6
66655	9201L149-015	B01R40	01/25				TC-99	3.2 +-0.5 E 01		03/11			3
							GR-A	L.T. 2. E 00		03/13			3
							GR-B	2.0 +-0.2 E 01		03/13			3
							SR-90	L.T. 4. E-01		03/21			3
							TOTAL U	2.1 +-0.3 E 00	UGM/LITER *	03/24			3
							TOTAL U	L.T. 5. E-02	UGM/LITER *	03/24			3
							GR-A -	4.1 +-9.90E-01		03/13			3
							GR-B	L.T. 2. E 00		03/13			3
							TC-99	L.T. 3. E 00		03/11			3
							SR-90	2.1 +-26.0E-02		03/21			3
							BE-7	L.T. 4. E 02		06/05			4
							K-40	L.T. 2. E 02		06/05			4
							MN-54	L.T. 1. E 01		06/05			4
							CO-58	L.T. 3. E 01		06/05			4
							FE-59	L.T. 1. E 02		06/05			4
							CO-60	L.T. 8. E 00		06/05			4

SUMMARY DATA REPORT

TELEDYNE ISOTOPES

REPORT OF ANALYSIS

RUN DATE 06/19/92

WORK ORDER NUMBER	CUSTOMER P.O. NUMBER	DATE RECEIVED	DELIVERY DATE	PAGE 11
4-6377	LL-0850-F4	02/12/92	03/16/92	

MS JOSIE KING
WESTON/WESTINGHOUSE/HANFORD
208 WELSH POOL ROAD
PICKERING CREEK INDUSTRIAL PARK
LIONVILLE PA 19341-1313

W A T E R

TELEDYNE SAMPLE NUMBER	CUSTOMER'S IDENTIFICATION	STA NUM	COLLECTION-DATE START DATE	START TIME	STOP DATE	STOP TIME	NUCLIDE	ACTIVITY (PCI/LITER)	NUCL-UNIT-% U/M *	MID-COUNT TIME DATE	MID-COUNT TIME TIME	VOLUME - UNITS ASH-WGHT-% *	LAB.
66655	9201L149-015	B01R40	01/25				ZN-65	L.T. 3. E 01		06/05			4
							ZR-95	L.T. 3. E 01		06/05			4
							RU-103	L.T. 9. E 01		06/05			4
							RU-106	L.T. 1. E 02		06/05			4
							I-131	L.T. 8. E 05		06/05			4
							CS-134	L.T. 1. E 01		06/05			4
							CS-137	L.T. 1. E 01		06/05			4
							BA-140	L.T. 1. E 04		06/05			4
							CE-141	L.T. 3. E 02		06/05			4
							CE-144	L.T. 1. E 02		06/05			4
							RA-226	L.T. 2. E 02		06/05			4
							TH-228	L.T. 2. E 01		06/05			4
							H-3	1.9 +-0.1 E 03		02/22			5
							H-3	L.T. 1. E 02		02/22			5
							PU-238	L.T. 8. E-01		06/11			6
							PU-239	L.T. 2. E-01		06/11			6
							PU-238 -	1.9 +-38.7E-02		06/11			6
							PU-239	3.9 +-87.4E-03		06/11			6

LAST PAGE OF REPORT

J Guenther
APPROVED BY J. GUENTHER 06/19/92

SEND 1 COPIES TO WE884S MS JOSIE KING

2 - GAS LAB. 3 - RADIO CHEMISTRY LAB. 4 - GE(LI) GAMMA SPEC LAB. 5 - TRITIUM GAS/L.S. LAB. 6 - ALPHA SPEC LAB.

SUMMARY DATA REPORT