Department of Energy
Nevada Operations Office
P. O. Box 98518
Las Vegas, NV 89193-8518

WBS #1.2.9.3
"QA"

AUG 0 9 1989

Leslie J. Jardine
Technical Project Officer for Yucca Mountain Project
Lawrence Livermore National Laboratory
P.O. Box 5514, L-217
Livermore, CA 94551

ACCEPTANCE OF RESPONSES TO OBSERVATIONS RESULTING FROM YUCCA MOUNTAIN PROJECT OFFICE (PROJECT OFFICE) QUALITY ASSURANCE (QA) AUDIT 89-6 OF LAWRENCE LIVERMORE NATIONAL LABORATORY

The Project Office QA staff has evaluated the responses to Observations 89-06-01 and 02, generated as a result of Project Office QA Audit 89-06 of LLNL. The responses to these observations are acceptable. Copies of the observations are enclosed for your information.

If you have any questions, please contact James Blaylock of my staff at (702) 794-7913 or FTS 544-7913, or John C. Friend of Science Applications International Corporation at (702) 794-7164 or FTS 544-7164.

Edwin L. Wilmot, Acting Director
Quality Assurance Division
Yucca Mountain Project Office

YMP:JB-5278

Enclosure:
Observations 89-06-01 and 02

8908160038 890809
PDR WASTE
WM-11 PDC

FULL TEXT ASCII SCAN

WM-11
102.7
NA03

YUCCA MOUNTAIN PROJECT OFFICE

N-QA-012
4/89

[1] YMPO OBSERVATION NO. 89-6-01

Completed by Originating Organization

[2] Noted During: YMP QA AUDIT 89-6	[3] Identified By: S. L. Crawford	[4] Date: 6/8/89
[5] Organization: LLNL	[6] Person(s) Contacted: W. Clarke, R. Lucina, R. Dann	[7] Response Due Date is 20 Days from Date of Transmittal

[8] Discussion:

LLNL YMP QA performs audits of calibration service suppliers at the request of the Electronic Calibration facility and Mechanical Engineering Calibration facility. Audits have been performed at Tektronix (3 locations) and SIMCO (Santa Clara, CA).

1. Four (4) Brooks Instrument flowmeters were sent to CEESI (Colorado Engineering, Nunn, Co.) for calibration; CEESI has not been audited or evaluated for capability to provide calibration services in accordance with LLNL YMP QA

[9] QAE/Lead Auditor	Date	[10] Branch Manager	Date
[signature]	6/29/89	[signature]	6-29-89

Completed by Resp...ee

[11] Response:

The Brooks Flowmeters were calibrated by CEESI since it was anticipated that CEESI would be qualified. A QA Audit was tentatively scheduled for August 89. Such qualification would have taken place prior to the need for the devices for QA Level I and II work. The flowmeters have been removed from the Approved YMP M&TE list dated 28 June 89 (Refer to Atch. 1) and a status change notice sent to the responsible Task Leader (Refer to Atch. 2).

Tektronix and SIMCO will be added to the qualified suppliers list when they have met all of the prerequisites of qualification. Since they are subcontractors to the LLNL Calibration facilities, they cannot be qualified until the Calibration facilities complete qualification. Refer to SDR 038.

[12] Signature: [signature] Date: 7/24/89

Completed by QA Org.

[13] Response Receipt Acceptable ☒

Initiator	Date	QA Lead Auditor	Date
[signature]	8/2/89	[signature]	8/2/89

[14] Remarks:

ENCLOSURE

8 Discussion: (continued)

requirements. Although the flowmeters are located physically at G tunnel, NTS, the flowmeters have not been used for any activities since calibration by CEESI. CEESI is on the LLNL YMP QA External Audit Schedule, but the planned month has not been designated.

2. Neither Tektronix nor SIMCO have been included on the LLNL YMP Qualified Suppliers list.

Attachment I

M&TE APPROVED FOR USE ON THE YMP

DATE ISSUED: JUNE 28,1989 PAGE 1 OF 3

INSTRUMENT	MODEL	MFG	IDENT NO	LAST CAL	CAL EXP	RECALL	ACTIVITY	BLDG	ROOM	TAL	TL
DATA ACQ C	HP 3497A	HP	3642427	10/04/88	10/04/89		B-20-2	243	1016	WILDER	LIN
FREQ LCR M	HP 4274A	HP	2517J03975	11/29/88	11/29/89		B-20-2	243	1016	WILDER	LIN
THERMOCOUP	TYPE J	OMEGA	8261-39-3	3/15/89	3/16/90		B-20-2	243	1016	WILDER	LIN
THERMOCOUP	TYPE J	OMEGA	8261-40-2	3/15/89	3/16/90		B-20-2	243	1016	WILDER	LIN
THERMOCOUP	TYPE J	OMEGA	8261-41-1	3/15/89	3/16/90		B-20-2	243	1016	WILDER	LIN
THERMOCOUP	TYPE J	OMEGA	8261-51-4	4/7/89	4/10/90		B-20-2	243	1016	WILDER	LIN
PRES TRANS	2104	TELEDYNE	761848	2/17/89	3/13/90		B-20-2	243	1016	WILDER	LIN
PRES TRANS	2403	TELEDYNE	803068	2/17/89	3/13/90		B-20-2	243	1016	WILDER	LIN
PRES TRANS	2403	TELEDYNE	803870	2/17/89	3/9/90		B-20-2	243	1016	WILDER	LIN
PRES TRANS	2403	TELEDYNE	803871	2/17/89	3/10/90		B-20-2	243	1016	WILDER	LIN
PRES TRANS	P10-40	VALIDYNE	66766	6/6/89	6/14/90		B-20-2	243	1016	WILDER	LIN
PRES GAGE	0TO10 MPA	HEISE	55437	2/17/89	2/21/90		B-20-2	243	1016	WILDER	LIN
PRES GAGE	0TO10 MPA	HEISE	55438	2/17/89	2/28/90		B-20-2	243	1016	WILDER	LIN
PRES GAGE	0TO100 MPA	HEISE	55439	2/17/89	2/28/90		B-20-2	243	1016	WILDER	LIN
PRES GAGE	T075000KPA	HEISE	21414	2/17/89	2/28/90		B-20-2	243	1016	WILDER	LIN
PRES GAGE	0TO4000BAR	HEISE	14226	2/17/89	6/6/90		B-20-2	243	1016	WILDER	LIN
STRAIN GAU	PLC	CELESCO	3	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
STRAIN GAU	PLC	CELESCO	1	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
STRAIN GAU	PLC	CELESCO	2	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
STRAIN GAU	PLC	CELESCO	4	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	26	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	30	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	25	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	40	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	29	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	13	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	37	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	19	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	41	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	16	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	42	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	15	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	31	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	32	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	20	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	43	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	35	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	39	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	14	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	33	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	36	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	28	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	27	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	38	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	44	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY

INSTRUMENT	MODEL	MFG	IDENT NO	LAST CAL	CAL EXP	RECALL	ACTIVITY	BLDG	ROOM	TAL	TL
THERMOCOUP	TYPE K	OMEGA	34	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	17	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
STRAIN GAU	5550	PRECISE SE	23479	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
STRAIN GAU	5550	PRECISE SE	24380	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
STRAIN GAU	5550 V5	PRECISE SE	23342	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
STRAIN GAU	5550 V6	PRECISE SE	23341	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
STRAIN GAU	2105	TABER	721223	8/09/88	8/09/89	6/28/89	B-20-4	281	1160	WILDER	GLASSLEY
WEIGHT SET	NONE	TROEMNER	4935825	9/14/88	9/15/89		D-20-31	243	2026	SHAW	RYERSON
WEIGHT SET	6137/1540	TROEMNER	4935832	9/15/88	9/15/89		D-20-31	243	2026	SHAW	RYERSON
CONTROLLER	SC12	CORTEST	4403461	CAL LAB		INITIAL	E-20-23	241	1878	CLARKE	McCRIGHT
STRIP CHAR	585/11/13	OMEGA	4347352	CAL LAB		INITIAL	E-20-23	241	1877	CLARKE	McCRIGHT
STRIP CHAR	585/11/13	OMEGA	4414849	CAL LAB		INITIAL	E-20-23	241	1877	CLARKE	McCRIGHT
STRIP CHAR	585/11/13	OMEGA	4076603	CAL LAB		INITIAL	E-20-23	241	1877	CLARKE	McCRIGHT
STRIP CHAR	585/11/13	OMEGA	4350130	CAL LAB		INITIAL	E-20-23	241	1877	CLARKE	McCRIGHT
POTENTIOST	173	PAR	4015329	4/28/89	10/28/89		E-20-23	241	1878	CLARKE	McCRIGHT
POTENTIOST	173	PAR	4369149	CAL LAB		INITIAL	E-20-23	241	1877	CLARKE	McCRIGHT
CONTROLLER	175	PAR	3676767	4/28/89	10/28/89		E-20-23	241	1878	CLARKE	McCRIGHT
POTENTIOST	273	PAR	4053581	4/21/89	10/20/89		E-20-23	241	1877	CLARKE	McCRIGHT
POTENTIOST	273	PAR	4066826	CAL LAB		INITIAL	E-20-23	241	1878	CLARKE	McCRIGHT
POTENTIOST	362	PAR	4272227	3/13/89	9/13/89		E-20-23	241	1878	CLARKE	McCRIGHT
POTENTIOST	363	PAR	4345822	1/09/89	7/09/89	6/5/89	E-20-23	241	1878	CLARKE	McCRIGHT
POTENTIOST	363	PAR	4277185	3/07/89	9/07/89		E-20-23	241	1878	CLARKE	McCRIGHT
POTENTIOST	363	PAR	3328949	3/07/89	9/07/89		E-20-23	241	1878	CLARKE	McCRIGHT
POTENTIOST	363	PAR	3711963	3/06/89	9/06/89		E-20-23	241	1878	CLARKE	McCRIGHT
POTENTIOST	363	PAR	3329106	CAL LAB			E-20-23	241	1878	CLARKE	McCRIGHT
CONVERTER	376	PAR	4764128	4/29/89	10/29/89		E-20-23	241	1878	CLARKE	McCRIGHT
LOAD CELL	D/3971-01	SENSOTEC	5015939	4/28/89	10/28/89		E-20-23	241	1878	CLARKE	McCRIGHT
LVDT	351-000	TRANS-TEK	4764111	CAL LAB		INITIAL	E-20-23	241	1878	CLARKE	McCRIGHT
WEIGHT SET	NONE	TROEMNER	4935818	9/15/88	9/15/89		E-20-23	241	1883	CLARKE	McCRIGHT
PROFILEOME	DEKTAK IIA	SLOAN	88503	1/12/89	1/12/90		G-20-3.1	151	1034A	SHAW	RYERSON
OSCILLOSCO	2465	TEKTRONIX	4160616	9/01/88	9/10/89		N-20-6	327		CLARKE	RUSSELL
WATT TRANS	S73-25-230	AME	4763411	10/07/88	10/07/90		S-20-1	G	TNL	WILDER	RAMIREZ
WATT TRANS	S73-25-230	AME	4763428	10/07/88	10/07/90		S-20-1	G	TNL	WILDER	RAMIREZ
DEPTH PROB	501DR	CPN	4737900	7/28/88	7/28/89	6/5/89	S-20-1	G	TNL	WILDER	RAMIREZ
DA CONTROL	3497A	HP	3854172	9/26/88	9/26/89		S-20-1	G	TNL	WILDER	RAMIREZ
PRES TRAN	2279-1	ASHCROFT	5038761	4/12/89	4/12/90		S-20-1	G	TNL	WILDER	RAMIREZ
PRES TRAN	2279-2	ASHCROFT	5038785	4/12/89	4/12/90		S-20-1	G	TNL	WILDER	RAMIREZ
PRES TRAN	2279-3	ASHCROFT	5038792	4/12/89	4/12/90		S-20-1	G	TNL	WILDER	RAMIREZ
PRES TRAN	2279-4	ASHCROFT	5038761	4/12/89	4/12/90		S-20-1	G	TNL	WILDER	RAMIREZ
BALANCE	2404	SARTORIUS	3792559	CAL LAB		INITIAL	J-20-8	281		AINES	SILVA
BALANCE	MG5D	METTLER	3559879	CAL LAB		INITIAL	J-20-8	281		AINES	SILVA
OSCILLOSCO	11402	TEKTRONIX	4928490	CAL LAB		INITIAL	J-20-8	281		AINES	SILVA
OSCILLOSCO	2335	TEKTRONIX	4728496	CAL LAB		INITIAL	J-20-8	281		AINES	SILVA
PULSE GEN	DG535	SRS	4778699	CAL LAB		INITIAL	J-20-8	281		AINES	SILVA
QRX THERM	2804A	HP	5038655	CAL LAB		INITIAL	J-20-8	281		AINES	SILVA
VERT AMP	11A34	TEKTRONIX	4921767	CAL LAB		INITIAL	J-20-8	281		AINES	SILVA
THERMOCOUP	TYPE K	OMEGA	3977512	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	3977529	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	3977536	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	3977543	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY

INSTRUMENT	MODEL	MFG	IDENT NO	LAST CAL	CAL EXP	RECALL	ACTIVITY	BLDG	ROOM	TAL	TL
THERMOCOUP	TYPE K	OMEGA	3977550	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	3977567	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	3977475	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	3977420	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	3977406	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	3977413	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	3977437	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	3977444	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	3977451	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	3977468	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	3977482	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY
THERMOCOUP	TYPE K	OMEGA	3977499	3/15/89	3/15/90		B-20-4	281		WILDER	GLASSLEY

LEGEND FOR M&TE CALIBRATION LIST

INSTRUMENT:	DESCRIPTION OF MEASUREMENT & TEST EQUIPMENT (M&TE)
MODEL :	MANUFACTURER'S M&TE MODEL/IDENTIFICATION
MFG :	MANUFACTURER OF M&TE
IDENT NO :	UNIQUE IDENTIFICATION NUMBER (DOE, SERIAL NUMBER, OR USER NUMBER IDENTIFIED IN ACTIVITY PLAN AND/OR SCIENTIFIC NOTEBOOK).
LAST CAL :	MOST RECENT CALIBRATION DATE
CAL EXP :	DATE M&TE CALIBRATION EXPIRES
RECALL :	DATE RECALL NOTICE WAS SENT INITIAL= FIRST CALIBRATION PERFORMED ON THIS M&TE BLANK = RECALL NOT YET DUE
ACTIVITY :	ACTIVITY DESIGNATION FROM SIP
BLDG :	LLNL OR OTHER AREA LOCATION FOR M&TE
ROOM :	ROOM NUMBER WITHIN BUILDING OR OTHER DESIGNATION
TAL :	TECHNICAL AREA LEADER RESPONSIBLE FOR INSTRUMENT
TL :	TASK LEADER RESPONSIBLE FOR INSTRUMENT

YUCCA MOUNTAIN PROJECT OFFICE

N-QA-012
4/89

[1] YMPO OBSERVATION NO. 89-6-02

Completed by Originating Organization

[2] Noted During: YMP QA Audit 89-6	[3] Identified By: F. J. Kratzinger	[4] Date: 6/7/89
[5] Organization: LLNL	[6] Person(s) Contacted: R. Schwartz, R. Oberle	[7] Response Due Date is 20 Days from Date of Transmittal

[8] Discussion:

It was noted during the audit that a copy of CAR-001, dtd. 4/18/89, was not forwarded to SAIC/T&MSS upon issuance as required by NNWSI/88-9, Revision 2, and by LLNL procedure 033-YMP-QP-16.0. A copy of the CAR was transmitted to YMPO and T&MSS upon closure. LLNL issued NCR-022, dtd. 6/7/89, to identify the discrepancy, and a letter of explanation was sent to YMPO and SAIC on 6/7/89. NCR-022 was closed 6/7/89.

[9] QAE/Lead Auditor	Date	[10] Branch Manager	Date
[signature]	6/29/89	[signature]	6-29-89

Completed by Resp. Org.

[11] Response:

The condition cited in this Observation has been addressed by the issue, processing and closure of LLNL-YMP NCR-022, dtd. 7 June 89. This NCR provided for corrective actions related to the identified condition.

No further action is planned for this item.

[12] Signature: [signature] Date: 7/24/89

Completed by QA Org.

[13] Response Receipt Acceptable ☒

Initiator	Date	QA Lead Auditor	Date
[signature]	8/2/89	[signature]	8/2/89

[14] Remarks:

University of California
Lawrence Livermore National Laboratory

YUCCA MOUNTAIN PROJECT

M&TE STATUS CHANGE NOTICE

Issue Date: June 9,1989

Custodian: Abe Ramirez

Item: Brooks Gas Flow Meters- 4ea.

ID #: (s) 1110CC81BE, 1110CJ31CD, 1110CL32CD, 1110CN44CD

NOT USEABLE ON YMP:

☐ NCR No. _____

OR

☐ Calibration Expired _____
(Date)

OR

☒ Other (describe):

Laboratory used to perform calibration was not qualified for use for YMP. You will be notified when qualified laboratory is located, or, this particular laboratory is certified for use on the project.

cc w/encl:
Ralph Stein, HQ (RW-30) FORS
Dwight Shelor, HQ (RW-3) FORS
R. E. Schwartz, LLNL, Livermore, CA
J. J. Brogan, SAIC, NV, 517/T-12
L. G. Scherr, SAIC, Las Vegas, NV, 517/T-06
J. C. Friend, SAIC, Las Vegas, NV, 517/T-06
S. W. Zimmerman, NWPO, Carson City, NV
J. E. Kennedy, NRC, Washington, DC

cc w/o encl:
D. W. Short, LLNL, Livermore, CA
Dale Hedges, SAIC, Las Vegas, NV, 517/T-06
G. P. Fehr, SAIC, Las Vegas, NV, 517/T-12
R. J. Bahorich, W, Las Vegas, NV, 517/T-37
J. W. Gilray, NRC, Las Vegas, NV