From: Vigil-Holterman, Luciana R
Sent: Friday, February 20, 2015 3:43 PM
To: Ryan.Flynn@state.nm.us; Jeff.Kendall@state.nm.us; John Kieling; steve.pullen@state.nm.us; Timothy.Hall@state.nm.us; siona.briley@state.nm.us; ricardo.maestas@state.nm.us; Gregory.Lauer@state.nm.us; steve.holmes@state.nm.us; coleman.smith@state.nm.us; butch.tongate@state.nm.us; Cobrain, Dave, NMENV; kathryn.roberts@state.nm.us
Cc: Pete Maggiore; Silas DeRoma; Cummings, Lisa K; Nickless, David J; Bishop, M. Lee; Turner, Gene E; Armijo, Karen (CONTR); Wallace, Terry C; Torres, Enrique; Woitte, Deborah Kay; Clemmons, Steve; Allen, Don; Brandt, Michael Thomas; Sharp-Geiger, Raeanna Racine; Dorries, Alison Marie; Grieggs, Tony; Bacigalupa, Gian A; Alexander, Rick A; Baumer, Andy; Martinez, Saundra; Sauer, Selena Z; Wood, Yvonne Barbara; Schreiber, Arleen Thorn; Maestas, Pamela Therese; Hargis, Kenneth Marshall; Juarez, Catherine L; Cabbil, Cheryl Denise; Young, Steven L; Erickson, Randy; Funk, David John; Alexander, Rick A; Frederici, Dave; Juarez, Catherine L; Robinson, Bruce Alan; Lansing, Michael Alan; Tymkowych, John M; Diaz, Tammy; Haagenstad, Mark P; Vigil-Holterman, Luciana R
Subject: Daily Technical Submission - February 20, 2015

Attached is the written daily technical submission for today. The Permittees are submitting the attached information pursuant to: Section 19 of the May 19, 2014, *Administrative Order;* the July 10, 2014 letter from NMED regarding *Modification to May 19, 2014, Administrative Order*; and Section IX of the September 19, 2014, *LANL Nitrate Salt-Bearing Waste Container Isolation Plan, Revision 2*.

Please contact Mark if additional information would be helpful.

Luciana Vigil-Holterman for Mark Haagenstad

Mark Haagenstad
Environmental Protection Division
Compliance and Permitting Group
Los Alamos National Laboratory
Office: (505) 665-2014
Mobile: (505) 699-1733

NMED / LANL Technical Summary

February 20, 2015

LANL Technical Update:

- **Location of Nitrate Salt-Bearing Wastes**
  - Remediated nitrate salt-bearing waste containers.
    - All containers remain in the 375 Permacon.
  - Unremediated nitrate salt-bearing waste containers.
    - All containers remain in the 231 Permacon.
- **Monitoring - Daily Temperature**
  - Temperatures remain below 90°F.
    - Previous day's temperature data attached.
- **Monitoring – Visual Inspections**
  - No abnormal conditions were observed.
- **Monitoring – headspace gas (HSG)**
  - Containers (SWBs) 68685 and SB50522.
    - Continue daily head space gas (HSG) sample collection.
      - February 20, 2015 HSG data attached.
        - H_2, CO, CO_2 and N_2O
  - Other containers:
    - A minimum of once per month HSG sampling will be conducted.
      - To date in February, LANL has conducted HSG sampling on 55 SWBs.
- **Additional measures currently underway**
  - As a conservative measure, LANL is currently conducting additional monitoring. This additional monitoring includes:
    - Containers (SWB) 68685 and SB50522.
      - LANL continuing *solid phase micro-extraction*.
      - Hourly temperature measurements are currently being performed on SWB 68685 and SB50522.
    - Five (5) other SWB overpacks (containing 55-gallon drums of remediated nitrate salt-bearing waste).
      - Continue twice-weekly HSG sample collection.
- **Anticipated Changes to Nitrate Salt-Bearing Waste Containers (e.g. movement, re-packaging)**
  - Currently, no further movements or re-packaging are occurring.

Other

Next Call: Tuesday, February 24, 2015

Summary Chart - Requested Information / Pending Issues:

	Requested Information	Actionee	Status	Completion Date
1.	NMED contact / process for LANL to notify NMED under the Revised Isolation Plan (e.g., 24 hour notices).	NMED	---	Complete June 5, 2014
2.	Keep NMED informed on the status of on-going chemistry / analytical work.	LANL	---	Complete June 9, 2014
3.	On upcoming daily call, provide additional discussion on the potential for liquids in the 350 post-1991 cemented containers (including a discussion of the review of RTR tapes).	LANL	---	Complete July 6, 2014 (Discussion on call) July 18, 2014 (Meeting held)
4.	On upcoming call, provide additional discussion on why 231 and 375 Permacon fire suppression systems are not part of the LANL RCRA Hazardous Waste Facility Permit Contingency Plan.	LANL	---	Complete June 5, 2014
5.	Send copy of June 4, 2014 written daily submission to Trais Kliphuis. Also, include her on future daily submissions.	LANL	---	Complete June 5, 2014
6.	Provide LANL procedures and example records associated with post-1991 TA-55 cementation process discussed on June 6.	LANL	---	Complete July 3, 2014
7.	Provide information on numbers of containers in the post-1991 cemented waste streams from the TA-55 process discussed on June 6. This should include numbers regarding RTR status (RTR'd, meet WIPP criteria, requiring remediation).	LANL	---	Complete June 17, 2014 (Supplemental Info provided July 3)
8.	Provide RTR video and pre-screening information associated with those containers requiring remediation from the post-1991 cemented waste streams from the TA-55 process discussed on June 6.	LANL	---	Complete July 3, 2014
9.	Provide copy of CCP/LANL Interface Document.	LANL	---	Complete June 9, 2014
10.	Provide a list of the analytes for which LANL is sampling HSG (CO_2 and LFL analytes).	LANL	---	Complete June 11, 2014
11.	Discuss potential sampling of HSG for NO_x.	LANL	---	Complete June 16, 2014

	Requested Information	Actionee	Status	Completion Date
12.	Follow-up with Tim Hall regarding LANL Hazardous Waste Facility Permit and procedures that LANL is developing for possible future sampling of empty parent containers and unremediated nitrate salt-bearing containers at LANL.	LANL	---	Complete Empty Parent June 16, 2014 Unremediated August 14, 2014 (Supplemental information discussed on sampling of parent containers) August 26, 2014 (Letter on applicability of LANL HWFP for opening waste containers)

	Requested Information	Actionee	Status	Completion Date
13.	Respond to NMED email request for information associated with the nitrate salt-bearing parent and daughter waste containers. WIPP Recovery Daily Meeting Action List item #84 – NMED requested a copy of the LANL remediation records for waste stored in Panel 6 (Trais Kliphuis) – is a subset of the information in item 5 of this action.	LANL	---	Complete July 9, 2014 (Letter sent addressing items 1-4 and 6-9 of the email request) July 17, 2014 (Letter sent with updated spreadsheet) August 7, 2014 (First submittal in response to item 5) August 14, 2014 (Letter addressing items 2 & 8 - Second submittal in response to item 5) August 18, 2014 (Third submittal in response to item 5) August 21, 2014 (Fourth submittal in response to item 5) August 27, 2014 (Fifth submittal in response to item 5) September 4, 2014 (Sixth submittal in response to item 5) September 9, 2014 (Seventh submittal in response to item 5) September 11, 2014 (Eighth submittal in response to item 5) September 22, 2014 (Ninth submittal in response to item 5) September 23, 2014 (Tenth submittal in response to item 5) October 1, 2014 (Eleventh submittal in response to item 5) October 8, 2014 (Twelfth submittal in response to item 5) October 16, 2014 (Thirteenth submittal in response to item 5) October 23, 2014 (Fourteenth submittal in response to item 5) October 27, 2014 (Fifteenth submittal in response to item 5) October 28, 2014 (Sixteenth submittal in response to item 5) November 3, 2014 (Seventeenth submittal in response to item 5)

	Requested Information	Actionee	Status	Completion Date
14.	NMED will review the Round Sheets (provided in June 11 summary) and inform LANL if these should be attachments to the Revised Plan, or if they fall under the provision in Section I of the Revised Isolation Plan and their identification during this technical call is sufficient.	NMED	NMED has reviewed Round Sheets – no comments / direction at this time. NMED will address any comments in their formal response to Revised Container Isolation Plan.	Complete June 23, 2014
15.	NMED has requested 'copies of any waste processing, treatment, characterization stop orders issued since Feb 14, 2014.'	LANL	---	Complete June 13, 2014 (Included w/ daily summary) June 16, 2014 (Discussed current TA-54 & WCRRF operations)
16.	NMED requested information on the location of drums 68327 and 68328. Request made June 14.	LANL	---	Complete June 14, 2014
17.	Update on LANL efforts – including LANL teams. (On June 20 call, LANL offered to schedule an update meeting).	LANL / NMED	---	Complete July 2, 2014
18.	Neutralizer use in association with container S855793 (parent of 68660 and 68685).	LANL	---	Complete June 25, 2014
19.	List of nitrate salt-bearing waste containers that LANL records indicate contain absorbed liquids with the same neutralizer, as discussed during June 25 technical call.	LANL	---	Complete September 30, 2014 (with August 26, 2014 response)
20.	Schedule follow-on update on LANL efforts – including teams.	LANL / NMED	---	Complete August 14, 2014 (Meeting held)
21.	NMED requested information on document approval / review (as discussed on July 3 call).	LANL	---	Complete July 29, 2014
22.	What analyses will be conducted on samples taken from empty drums that previously contained nitrate salt-bearing waste.	LANL	---	Complete July 7, 2014
23.	NMED requested the following information on cemented waste containers generated from TA-55, that are currently stored above-ground at Area G: container id number; location; form (cans or monoliths); and type of concrete. Additionally, NMED requested information on pH adjustment during waste generation process, and information on anticipated pH of free liquids (and rationale).	LANL	---	Complete July 17, 2014 (Letter sent w/ information) July 18, 2014 (Meeting held)

	Requested Information	Actionee	Status	Completion Date
24.	NMED requested the procedure for sampling empty parent drums that previously contained nitrate salt-bearing waste.	LANL	EP-AREAG-WO-DOP-1245 is included in Enclosure 1 to LANL's July 3, 2014 *Response to Request for Information on Management of Waste at LANL*.	Complete July 8, 2014
25.	NMED requested an additional discussion on a future technical call regarding CO_2, including data.	LANL	---	Complete August 14, 2014 (Meeting held)
26.	NMED requested additional discussion on CIN-01 waste containers and absorbent, including confirmation and extent of use.	LANL	---	Complete July 18, 2014 (Meeting held)
27.	NMED requested historic analytical information on pH of liquids associated with gypsum cemented waste.	LANL	---	Complete August 7, 2014
28.	NMED requested link to pdf of Actinide Quarterly edition (3rd Q 2008).	LANL	---	Complete July 21, 2014
29.	NMED requested a copy of lessons learned	LANL	---	Complete August 11, 2014
30.	NMED request regarding empty drum sampling presentation.	LANL	Presentation is a pre-decisional draft/working document not for external release	August 25, 2014
31.	Respond to NMED email request dated 8/12/2014 for information associated with the nitrate salt-bearing waste containers.	LANL	---	Complete September 11, 2014
32.	NMED request regarding technical presentation.	LANL	Presentation is a pre-decisional draft/working document not for external release	August 25, 2014
33.	NMED request regarding literature review of catalytic reactions.	LANL	Literature review is a pre-decisional draft/working document not for external release	August 25, 2014
34.	LANL requested to schedule a meeting with NMED on remediation planning and schedules.	LANL / NMED	---	Complete September 29, 2014 (meeting held)
35.	Schedule a third update on LANL efforts – including teams.	LANL / NMED	---	Complete October 20, 2014

	Requested Information	Actionee	Status	Completion Date
36.	NMED request regarding LANL Causal Analysis associated with processing of nitrate salt-bearing waste at WCRRF – when document is Final.	LANL	Document is currently Draft.	
37.	NMED requested a diagram illustrating the current locations within the 375 Permacon of the 55 SWBs that contain the 57 remediated nitrate salt-bearing waste containers. NMED also requested a list of these 55 SWBs and the waste drums within each SWB (including the container numbers and waste stream type).	LANL	---	Complete October 27, 2014 (Diagram submitted) November 3, 2014 (Table submitted) November 20, 2014 (Revised table submitted)

	Requested Information	Actionee	Status	Completion Date
38.	NMED requested documentation regarding CIN01.001 waste containers that are not part of the September 19, 2014 Nitrate Salts-Bearing Waste Container Isolation Plan, Revision 2.	LANL	In Progress LANL will submit this documentation in batches as it is becomes available.	Submitted 100 out of 586 RTRs and documentation on October 3, 2014. Submitted documentation for 101-200 containers on October 10, 2014. Submitted documentation for 201-300 containers on October 16, 2014. Submitted documentation for 301-400 containers on October 23, 2014. Submitted documentation for 401-500 containers on October 27, 2014. Submitted documentation for 501-586 containers on November 12, 2014. Submitted RTR Videos 101-150 on November 12, 2014. Submitted RTR Videos 151-200 on November 20, 2014. Submitted RTR Videos 201-250 on December 1, 2014. Submitted RTR Videos 251-300 on December 19, 2014. Submitted RTR Videos 301-312 on January 15, 2015.
39.	NMED requested a diagram of the location of the thermocouples on 68685 and SB50522.	LANL	---	Complete October 27, 2014
40.	NMED requested a copy of the safety basis document for remediation planning when it is finalized.	LANL	Document is currently in Draft.	
41.	Trending and correlation of temperature and HSG monitoring data.	LANL	In progress	
42.	Schedule a fourth update on LANL efforts – including teams.	LANL/ NMED	---	Complete November 3, 2014

	Requested Information	Actionee	Status	Completion Date
43.	Schedule a fifth update on LANL efforts – including teams.	LANL/ NMED	---	Complete November 20, 2014
44.	Schedule a sixth update on LANL efforts – including teams.	LANL/ NMED	---	Complete December 9, 2014
45.	NMED requested documentation regarding CIN01 drums.	LANL	---	Complete Email- February 3, 2015 Letter- February 19, 2015
46.	NMED requested documentation regarding duplicate drum number.	LANL	In Progress	
47.	NMED requested the ESS plan for temperature control and sampling once finalized.	LANL	Document is currently in Draft.	
48.	Schedule a seventh update on LANL efforts – including teams.	LANL/ NMED	---	Complete January 29, 2015
49.	Fire suppression repair plan for Dome 231	LANL	---	This repair plan is no longer necessary because drum movement did not occur during the repair process. Repair is complete.
50.	NMED requested information regarding solution packages 36, 37, 57 and 78.	LANL	Email sent February 17, 2015. Letter to follow.	

Remediated Nitrate Salt Container Headspace Gas Analysis

	68685				SB50522			
Date	**H_2 ppm**	**CO ppm**	**CO_2 ppm**	**N_2O ppm**	**H_2 ppm**	**CO ppm**	**CO_2 ppm**	**N_2O ppm**
02/20/15	141	418	8809	2219	2200	476	35931	993

ATTACHMENT 2
Page 1 of 3

TA-54 AREA G TA-54-231 NITRATE SALT TRU WASTE CONTAINER DAILY TEMPERATURE DATA SHEET

6.[6] Date: From 2·16·15 to 2·22·15

	Monday 6.[6] Start Time: 0808	Tuesday 6.[6] Start Time: 0910	Wednesday 6.[6] Start Time: 0915	Thursday 6.[6] Start Time: 1049	Friday 6.[6] Start Time:	Saturday 6.[6] Start Time:	Sunday 6.[6] Start Time:
TA-54-231							
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Fluke Model: 561 Cal. Due Date: 7/29/15 File Number 101974	Brand: FLUKE Model: 561 Cal. Due Date: 7-29-15 File Number 101974	Brand: Fluke Model: 561 Cal. Due Date: 07/29/15 File Number 101974	Brand: Fluke Model: 561 Cal. Due Date: 07/29/15 File Number 101	Brand: FLUKE Model: 561 Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[7])	46.7 °F	53.9 °F	55.2 °F	57.6 °F	°F	°F	°F
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
S818435	48.2	52.2	51.4	55.5			
S802833	48.9	51.3	51.8	54.5			
S801676	50.1	51.5	48.6	54.2			
S816810	53.8	56.8	52.3	57.4			
70069	54.0	55.0	51.1	56.8			
S822844	54.9	57.2	50.9	57.3			
S825879	53.3	56.6	52.4	57.8			
S793724	53.8	56.7	53.3	58.2			
S813545	52.9	55.4	52.0	56.7			
S822713	52.0	54.5	55.0	56.4			
S802739	51.0	53.2	52.4	55.7			
69907	50.0	52.8	53.1	55.7			
S804995	50.6	53.2	52.0	56.0			
S816434	50.8	54.0	51.1	56.7			

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ATTACHMENT 2
Page 2 of 3

6.[6] Date: From 2·16·15 to 2·22·15

Container ID #	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
TA-54-231 (continued)							
S805289	50.7	53.4	51.2	56.2			
S862888	51.1	52.8	54.6	56.3			
70072	50.7	53.1	53.9	53.8			
S823184	51.6	53.9	50.8	56.2			
S822599	52.1	53.5	53.8	57.3			
69904	52.7	54.9	52.4	57.0			
S805051	53.3	55.8	53.2	57.5			
S864213	53.2	55.7	52.7	57.1			
S853714	53.8	55.6	53.3	57.0			
S803078	53.1	56.0	56.0	57.1			
S825878	52.9	55.4	52.7	57.5			
S823124	52.5	55.3	52.7	57.3			
S804948	51.3	53.6	53.5	56.2			
S813385	50.8	52.6	52.9	56.8			
S842446	51.4	53.2	52.3	56.6			
Ambient Temperature (6.[12])	46.2 °F	53.2 °F	54.4 °F	55.2 °F	____ °F	____ °F	____ °F
End Time (6.[13])	0816	0915	0935	1101			
6.[13]	Operator: JR Operator: 2C	Operator: [signature] Operator: [signature]	Operator: [signature] Operator: [signature]	Operator: [signature] Operator: [signature]	Operator: ____ Operator: ____	Operator: ____ Operator: ____	Operator: ____ Operator: ____

ATTACHMENT 2
Page 3 of 3

6.[6] Date: From 2-16-15 to 2-22-15

6.[2] Comments: _____

6.[17] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Jackie Romero	Jackie Romero	11870661	JR	2-16-15
Eliot D. Cordova	Eliot D. Cordova	114188	EC	2-16-15
Alfredo Aquilar	Alfredo Aquilar	293128	AA	2-17-15
THOMAS VIGIL	THOMAS VIGIL	236382	TV	2/17/15
Josephine Duran	Josephine Duran	153971	JD	2/18/15
Alfredo Aquilar	Alfredo Aquilar	293128	AA	2-18-15
Josephine Duran	Josephine Duran	153971	JD	2/19/15

Operator (print)	Signature	Z#	Initials	Date
THOMAS VIGIL	THOMAS VIGIL	236382	TV	2/19/15

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date

ATTACHMENT 3
Page 1 of 3

TA-54 AREA G TA-54-375 CELL 1 NITRATE SALT TRU WASTE CONTAINER DAILY TEMPERATURE DATA SHEET

6.[6] Date: From 2·16·15 to 2·22·15

IPC-1

	Monday 6.[6] Start Time: 0726	Tuesday 6.[6] Start Time: 0955	Wednesday 6.[6] Start Time: 1506	Thursday 6.[6] Start Time: 1400	Friday 6.[6] Start Time:	Saturday 6.[6] Start Time:	Sunday 6.[6] Start Time:
TA-54-375 Cell 1							
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Fluke Model: 561 Cal. Due Date: 6/12/15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6/12/15 File Number 101915	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: FLUKE Model: 561 Cal. Due Date: 6-12-15 File Number 101915	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[7])	46.6 °F	50.7 °F	56.6 °F	58.9 °F	°F	°F	°F
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
68685	49.6	53.7	57.8	59.9			
LA00000070503 68540	49.5	53.6	57.6	59.5			
LA00000070503 68553	48.9	52.0	57.8	59.6			
69445	49.0	52.8	58.4	60.0			
69618	48.4	52.3	58.3	59.8			
69013	50.5	53.5	58.3	59.8			
LASB50522	51.6	54.6	58.4	59.8			
LASB50452	50.9	54.8	58.2	60.1			
LASB50431	51.7	54.8	58.4	59.5			
LASB50069	51.3	54.2	57.8	59.6			
LASB50073	51.2	54.2	57.5	59.5			
69636	51.7	55.2	58.4	~~59.3~~ 2-19-15 59.3			
69616	52.5	54.4	58.2	59.5			
69417	51.1	54.1	58.5	59.7			

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ATTACHMENT 3
Page 2 of 3

6.[6] Date: From 2·16·15 to 2·22·15

Container ID #	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
TA-54-375 Cell 1 (continued)							
69620	51.2	54.5	58.3	59.7			
69520	52.0	54.2	58.2	59.6			
69641	52.2	54.5	58.5	60.0			
69298	52.7	54.7	58.4	59.8			
LASB02203	52.6	54.8	58.7	59.8			
Ambient Temperature (6.[12])	46.7 °F	51.9 °F	57.0 °F	59.3 °F	°F	°F	°F
End Time (6.[13])	0730	1001	1510	1403			
6.[13]	Operator: ★ Operator: NS	Operator: [signature] Operator: [signature]	Operator: EP Operator: [signature]	Operator: [signature] Operator: [signature]	Operator: Operator:	Operator: Operator:	Operator: Operator:

6.[2] Comments:

ATTACHMENT 3
Page 3 of 3

6.[6] Date: From 2·16·15 to 2·22·15

6.[17] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Thomas Vigil		23582	TV	2/16/15
Norman Sanchez		187818	NS	2/16/15
Thomas Vigil		23582	TV	2/17/15
Tony Sena		237354		2/17/15
Edward Parker		100497	EP	2-18-15
Leon Montoya		179526		2·18·15
Juan Garcia		169840	JG	2-19-15

Operator (print)	Signature	Z#	Initials	Date
Leon Montoya		179526		2/19/15

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date

ATTACHMENT 4
Page 1 of 3

TA-54 AREA G TA-54-375 CELL 2 NITRATE SALT TRU WASTE CONTAINER DAILY TEMPERATURE DATA SHEET

6.[6] Date: From 2·16·15 to 2·22·15

	Monday 6.[6] Start Time: 0731	Tuesday 6.[6] Start Time: 1052	Wednesday 6.[6] Start Time: 1511	Thursday 6.[6] Start Time: 1404	Friday 6.[6] Start Time:	Saturday 6.[6] Start Time:	Sunday 6.[6] Start Time:
TA-54-375 Cell 2							
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Fluke Model: 561 Cal. Due Date: 6/12/15 File Number 101912	Brand: Fluke Model: 561 Cal. Due Date: 6/12/15 File Number 101912	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101912	Brand: FLUKE Model: 561 Cal. Due Date: 6-12-15 File Number 101912	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[7])	49.9 °F	53.9 °F	58.2 °F	59.8 °F	°F	°F	°F
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
LASB02198	49.5	53.8	57.4	59.1			
68638	51.1	54.6	59.3	60.4			
69615	51.0	55.5	60.1	60.3			
69635	51.7	56.3	60.1	61.1			
69642	50.6	56.0	59.4	60.8			
69630	50.1	56.2	59.2	60.8			
69633	51.6	55.5	59.8	60.6			
68430	51.0	54.9	58.8	60.6			
68631	50.0	54.4	58.4	60.5			
69634	49.8	54.0	58.0	~~59.8~~ 59.6			
68567	49.2	53.6	57.6	58.9			
94227	50.3	54.9	58.5	60.3			
LASB50442	51.3	56.2	59.2	60.6			
69644	51.5	55.9	59.5	60.9			
LASB50443	49.9	54.7	58.3	60.2			
69638	51.1	54.3	59.9	61.2			

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ATTACHMENT 4
Page 2 of 3

6.[6] Date: From 2·16·15 to 2·22·15

Container ID #	Monday Temp (°F) (6.[8]/6.[9])	Tuesday Temp (°F) (6.[8]/6.[9])	Wednesday Temp (°F) (6.[8]/6.[9])	Thursday Temp (°F) (6.[8]/6.[9])	Friday Temp (°F) (6.[8]/6.[9])	Saturday Temp (°F) (6.[8]/6.[9])	Sunday Temp (°F) (6.[8]/6.[9])
TA-54-375 Cell 2 (continued)							
68624	52.6	58.3	59.7	60.6			
68507	51.9	56.0	59.9	61.0			
69568	50.7	54.2	58.8	60.0			
69553	50.4	53.5	57.9	58.7			
69598	50.1	54.1	57.6	58.8			
LASB50559	51.5	54.7	58.9	59.8			
69015	51.6	55.4	60.0	61.0			
69639	52.0	55.9	60.1	60.8			
69637	51.7	54.8	60.4	61.1			
Ambient Temperature (6.[12])	49.7 °F	53.6 °F	58.2 °F	59.7 °F	°F	°F	°F
End Time (6.[13])	0739	1008	1514	1408			
6.[13]	Operator: JV Operator: NS	Operator: JV Operator:	Operator: LEP Operator:	Operator: AM Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:

6.[2] Comments:

ATTACHMENT 4
Page 3 of 3

6.[6] Date: From 2·16·15 to 2·22·15

6.[17] Performed by:

Operator (print)	Signature	Z#	Initials	Date
THOMAS VIGIL		124382		2/16/15
Norman Sanchez	Norman Sanchez	187818	NS	2/16/15
THOMAS VIGIL		124382		2/17/15
Tony Sena		1237392		2/17/15
Edward Padilla	Edward Padilla	100447	EP	2-18-15
Leon Montoya		191526		12-18-15
Juan Garcia		189840		12-19-15
Leon Montoya		191526		12-19-15
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date
	/	/	/	/

ATTACHMENT 5
Page 1 of 2

TA-54 AREA G TA-54-375 CELL 3 NITRATE SALT TRU WASTE CONTAINER DAILY TEMPERATURE DATA SHEET

6.[6] Date: From 2-16-15 to 2-22-15

	Monday 6.[6] Start Time: 0720	Tuesday 6.[6] Start Time: 0947	Wednesday 6.[6] Start Time: 1503	Thursday 6.[6] Start Time: 1356	Friday 6.[6] Start Time:	Saturday 6.[6] Start Time:	Sunday 6.[6] Start Time:
TA-54-375 Cell 3							
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Fluke Model: 561 Cal. Due Date: 6/12/15 File Number 101916	Brand: Fluke Model: 561 Cal. Due Date: 6/12/15 File Number 101916	Brand: Fluke Model: 561 Cal. Due Date: 6-12-15 File Number 101916	Brand: FLUKE Model: 561 Cal. Due Date: 6-12-15 File Number 101916	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[7])	50.0 °F	53.1 °F	59.8 °F	60.2 °F	°F	°F	°F
Container ID #	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
69519	52.4	54.1	59.9	60.2			
69645	52.7	54.0	60.4	60.4			
94068	52.8	54.3	60.1	60.5			
93605	51.2	53.0	59.6	60.2			
69548	51.4	53.2	59.5	59.9			
69604	52.0	53.2	60.5	59.7			
LASB50529	52.8	54.2	60.0	60.0			
LASB50418	51.4	53.5	60.9	60.4			
69036	51.4	53.8	60.4	60.5			
LASB50451	51.2	53.6	60.7	60.8			
69559	52.0	53.4	59.9	59.9			
LASB50448	50.9	52.6	57.4	60.3			
Ambient Temperature (6.[12])	50.1 °F	53.7 °F	60.0 °F	60.1 °F	°F	°F	°F
End Time (6.[13])	0725	0954	1505	1359			
6.[13]	Operator: TV Operator: NS	Operator: Operator:	Operator: EP Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:	Operator: Operator:

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Z# 114188

ATTACHMENT 5
Page 2 of 2

6.[6] Date: From 2.16.15 to 2.22.15

6.[2] Comments:

6.[17] Performed by:

Operator (print)	Signature	Z#	Initials	Date
THOMAS VIGIL		236382		2/16/15
Norman Sanchez		187818	NS	2/16/15
THOMAS VIGIL		236382		2/17/15
Tony Sena		237392		2/17/15
Edward Pacheco		100497	EP	2/18/15
[illegible]		191526		2-18-15
Juan Garcia		169840		2-19-15

Operator (print)	Signature	Z#	Initials	Date
[illegible]		191526		2/19/15
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/
	/	/	/	/

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date
	/	/	/	/

ATTACHMENT 6
Page 1 of 3

TA-54 AREA G NITRATE SALT TRU WASTE CONTAINER HOURLY TEMPERATURE DATA SHEET

6.[6] Date: From 2-19-15 to 2-19-15 Location: 375

	Start Time: 6.[6] 0626	Start Time: 6.[6] 0724	Start Time: 6.[6] 0827	Start Time: 6.[6] 0926	Start Time: 6.[6] 1026	Start Time: 6.[6] 1126	Start Time: 6.[6] 1228	Start Time: 6.[6] 1333	Start Time: 6.[6] 1428	Start Time: 6.[6] 1529	Start Time: 6.[6] 1625	Start Time: 6.[6] 1726	Start Time: 6.[6]	Start Time: 6.[6]
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Model: Cal. Due Date: N/A File Number	Brand: Model: Cal. Due Date: N/A File Number	Brand: Model: Cal. Due Date: N/A File Number	Brand: Model: Cal. Due Date: N/A File Number	Brand: Model: Cal. Due Date: N/A File Number	Brand: Model: Cal. Due Date: N/A File Number	Brand: Model: Cal. Due Date: N/A File Number	Brand: Model: Cal. Due Date: N/A File Number	Brand: Model: Cal. Due Date: N/A File Number	Brand: Model: Cal. Due Date: N/A File Number	Brand: Model: Cal. Due Date: N/A File Number	Brand: Model: Cal. Due Date: N/A File Number	Brand: Model: Cal. Due Date: File Number	Brand: Model: Cal. Due Date: File Number
Ambient Temperature (6.[7]) TS	48.77 °F	48.24 °F	49.75 °F	52.19 °F	51.99 °F	53.74 °F	56.74 °F	58.24 °F	59.75 °F	59.40 °F	58.55 °F	57.20 °F	°F	°F
Container ID # (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
68685 T1	50.70	50.13	51.33	53.53	52.5	53.73	56.61	58.20	59.09	59.29	58.29	56.97		
68685 T2	49.81	49.42	50.88	52.94	51.80	53.09	55.68	57.21	58.24	58.37	57.43	56.18		
50522 T4	50.79	50.36	51.16	52.78	52.41	53.23	55.33	56.71	57.66	57.93	57.26	56.32		
50522 T5	50.54	50.06	50.92	52.58	52.18	53.26	55.47	56.82	57.70	57.86	57.17	56.20		

N/A

N/A

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Z# 112907
INITIAL LCL DATE 2-19-15

ATTACHMENT 6

Page 2 of 3

6.[6] Date: From 2-19-15 to 2-19-15 Location: 375

Container ID # (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
								N/A						
														N/A
Ambient Temperature (6.[12]) T3	48.75 °F	48.24 °F	49.25 °F	52.19 °F	51.99 °F	53.78 °F	56.74 °F	58.22 °F	59.25 °F	59.40 °F	58.55 °F	57.20 °F	°F	°F
End Time (6.[13])	0626	0725	0825	0927	1027	1127	1228	1334	1429	1529	1626	1727		
6.[13]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: JC	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: JC	Operator: [illegible] Operator: JC	Operator: [illegible] Operator: JC	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: JC	Operator: [illegible] Operator: JC	Operator: [illegible] Operator: [illegible]	Operator: [illegible] Operator: JC	Operator: Operator:	Operator: Operator:

ATTACHMENT 6
Page 3 of 3

6.[6] Date: From 2-18-15 to 2-19-15 Location: 375

6.[2] Comments: did not enter permacon due to area G standing order 1246 R2 all temps were takin from data logger computer in dome 375 no futher entrys

NA

6.[17] Performed by:

Operator (print)	Signature	Z#	Initials	Date
William Juarez	[signature]	201458	WJ	2-19-15
Jesse Chavez	[signature]	101457	JC	2-19-15
Thomas Vigil	[signature]	232302	TV	2/19/15
Lina Aguirre	[signature]	174919	LA	2-19-15

NA

Operator (print)	Signature	Z#	Initials	Date

NA

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date
Gail Welsh	[signature]	114849	GW	2/19/15

ATTACHMENT 6
Page 1 of 3

TA-54 AREA G NITRATE SALT TRU WASTE CONTAINER HOURLY TEMPERATURE DATA SHEET

6.[6] Date: From 02-19-15 to 02-20-15 Location: Dome 375

	Start Time: 6.[6] 1830	Start Time: 6.[6] 1927	Start Time: 6.[6] 2028	Start Time: 6.[6] 2130	Start Time: 6.[6] 2229	Start Time: 6.[6] 2330	Start Time: 6.[6] 0030	Start Time: 6.[6] 0129	Start Time: 6.[6] 0226	Start Time: 6.[6] 0327	Start Time: 6.[6] 0425	Start Time: 6.[6] 0525	Start Time: 6.[6]	Start Time: 6.[6]
Calibrated Infrared Thermometer (4.2.1[1][B])	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model: NA Cal. Due Date: File Number	Brand: Model Cal. Due Date File Number	Brand: Model Cal. Due Date File Number
Ambient Temperature (6.[7])	54.75 °F	53.23 °F	51.52 °F	51.29 °F	50.97 °F	51.87 °F	51.38 °F	50.57 °F	51.55 °F	51.51 °F	51.05 °F	50.91 °F	N/A °F	N/A °F
Container ID # (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
T(1) 68685	54.66	53.30	51.66	51.99	51.81	52.63	52.16	51.64	52.54	52.53	52.13	52.09		
T(2) 68685	53.84	52.65	51.12	51.24	51.22	52.71	51.81	50.98	51.92	51.95	51.60	51.52		
T(4) 50522	54.60	53.49	52.19	52.39	52.16	52.58	52.33	52.01	52.57	52.49	52.10	52.07		
T(5) 50522	54.35	53.23	51.93	~~58~~ 52.05	51.82	52.38	52.09	51.70	52.28	52.25	51.87	51.83		
						N/A								

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Z# 234253
INITIAL TR DATE 2-19-15

ATTACHMENT 6
Page 2 of 3

6.[6] Date: From 02-19-15 to 02-20-15 Location: Dome 375

Container ID # (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])	Temp (°F) (6.[8]/6.[9])
					N/A								N/A	N/A
Ambient Temperature (6.[12])	54.15 °F	53.22 °F	51.52 °F	51.29 °F	50.97 °F	51.87 °F	51.38 °F	50.57 °F	51.50 °F	51.51 °F	51.05 °F	50.91 °F	____ °F	____ °F
End Time (6.[13])	1830	1928	2028	2130	2229	2330	0031	0129	0227	0327	0425	0525		
6.[13]	Operator: LQC Operator: TR	Operator: TR Operator: LQC	Operator: LQC Operator: TR	Operator: LQC Operator: TR	Operator: LQC Operator: TR	Operator: LQC Operator: TR	Operator: LQC Operator: TR	Operator: LQC Operator: TR	Operator: TR Operator: LQC	Operator: LQC Operator: TR	Operator: LQC Operator: TR	Operator: LQC Operator: TR	Operator: ____ Operator: ____	Operator: ____ Operator: ____

ATTACHMENT 6

Page 3 of 3

6.[6] Date: From 02-19-15 to 02-20-15 Location: Dome 375

6.[2] Comments: Did not Enter permacon per Standing order 1247.R2 All temps are taken from Data loggers in control room in Dome 375

N/A

6.[17] Performed by:

Operator (print)	Signature	Z#	Initials	Date
Willie S. Cordova	[signature]	112907	WSC	02-20-15
Timmy Romero	[signature]	034253	TR	2-20-15
N/A				

Operator (print)	Signature	Z#	Initials	Date
N/A				

8.1[2] Reviewed by:

SOM or designee (print)	Signature	Z#	Initials	Date