

South Dakota Science and Technology Authority

**Board Meeting
September 21, 2017**



630 East Summit Street
Lead, SD 57754

Call to Order continued...

1A. Call Roll

Dr. Ani Aprahamian
Mr. Paul Christen
Mr. Dana Dykhouse
Ms. Pat Lebrun
Mr. Casey Peterson
Dr. Jan Puszynski, ex-officio member
Mr. Ron Wheeler
Dr. Bob Wilson

1B. Introduce Guests

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Approve Agenda—Chairperson Casey Peterson

Attached is the agenda for the September 21, 2017 meeting.

Recommended Action:

Motion to approve agenda as presented.

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AGENDA

Meeting of the Board of Directors

Thursday, September 21, 2017 at 8:00 AM (MT)

Yates Education & Outreach Conference Room

Public (Open) Session: 1-866-740-1260, Access Code: 7228650, www.readytalk.com

SDSTA Mission: *To advance compelling underground, multidisciplinary research in a safe work environment and to inspire and educate through science, technology and engineering.*

| Title | Report | Recommendations |
|--|-------------------------|--|
| 1. Call to Order | -- Chair Casey Peterson | <i>None-informational</i> |
| A. Call Roll | | |
| B. Introduce Guests | | |
| 2. Approve Agenda | -- Chair Casey Peterson | <i>Motion to approve agenda</i> |
| 3. Approve Minutes | -- Chair Casey Peterson | <i>Motion to approve the June 22 and June 28, 2017 minutes</i> |
| 4. Disclosure Under SDCL CH. 3-23— Casey Peterson | -- Mr. Tim Engel | <i>None-informational</i> |
| 5. Waiver Under SDCL CH. 3-23— Ron W. Wheeler | -- Mr. Tim Engel | <i>Grant waiver or decline to grant waiver</i> |
| 6. Report from Audit Committee | -- Ms. Pat Lebrun | <i>None-informational</i> |
| 7. Financial Report | -- Mr. Mike Headley | <i>Motion to accept report as presented</i> |
| A. Financial Statements | -- Ms. Nancy Geary | |
| B. FY End Inventory Listing | | |
| C. FY End Per Diem Listing | | |
| 8. Report from Executive Director | -- Mr. Mike Headley | <i>All informational</i> |
| A. SDSTA Quarterly Update | | |
| B. Declaration of Surplus Property | | |
| C. SLHVC Update | -- Ms. Billi Bierle | <i>Presentation</i> |
| D. E&O Update | -- E&O Team | <i>Presentation</i> |
| | | <i>Motion to accept executive director's report</i> |
| 9. Review of updated SDSTA Leave Policy | -- Mr. Mike Headley | <i>Motion to approve updated SDSTA Leave Policy as presented</i> |
| 10. Executive Session (closed meeting) | -- Chair Casey Peterson | <i>Motion to enter executive session to discuss personnel matters and to consult with legal counsel concerning contractual matters</i> |
| 11. Report from Executive Session | -- Chair Casey Peterson | <i>Motion to accept executive session report</i> |
| 12. Confirm date and time of next meeting | -- Chair Casey Peterson | <i>Thursday, December 14, 2017 at 9:00am (MT) -- followed by lunch on-site</i> |
| 13. Board Comments | | |
| 14. Adjourn | -- Chair Casey Peterson | <i>Motion to adjourn</i> |

Please do not place or accept cell phone calls during this meeting. A copy of this agenda has been posted in a manner visible to the public at the entrance to the South Dakota Science and Technology Authority office located at 630 East Summit Street, Lead, South Dakota at least 72 hours prior to this meeting.
Telephone: (605) 722-8650.

AGENDA

Meeting of the Board of Directors

Thursday, September 21, 2017 at 8:00 AM (MT)

****Yates Education & Outreach Conference Room****

Public (Open) Session: 1-866-740-1260, Access Code: 7228650, www.readytalk.com

SDSTA Board Member Terms of Service, Committees and Schedule

| Board Members and Terms of Service | | | |
|------------------------------------|---|--------------------------------|--------------------|
| | Board Members | Appointed | Term Expires |
| 1. | Dr. Ani Aprahamian | Re-appointed December 10, 2015 | December 9, 2021 |
| 2. | Mr. Paul Christen | Re-appointed August 5, 2016 | August 8, 2022 |
| 3. | Mr. Dana Dykhous, Vice-Chair | Re-appointed August 1, 2014 | August 14, 2020 |
| 4. | Ms. Patricia Lebrun, Secretary-Treasurer | Re-appointed August 5, 2016 | August 8, 2022 |
| 5. | Mr. Casey Peterson, Chair | Re-appointed August 25, 2015 | August 8, 2021 |
| 6. | Mr. Ron Wheeler, Vice-Chair | Re-appointed April 10, 2014 | April 9, 2020 |
| 7. | Dr. Robert Wilson | August 24, 2015 | August 8, 2021 |
| 8. | Dr. Jan Puszynski, <i>ex-officio member</i> | SDSM&T Interim President | |
| Committees and Members (2017-2018) | | | |
| | Audit Committee Members: | Nominating Committee Members: | |
| | ➤ Pat Lebrun-Chair | ➤ Ani Aprahamian | |
| | ➤ Paul Christen | ➤ Dana Dykhous | |
| | ➤ Casey Peterson, <i>ex-officio</i> | | |
| 2017 Board Schedule | | | |
| | February 24, 2017 | 3:30 pm (MT) | Special Telephonic |
| | March 16, 2017 | 8:00 am (MT) | E&O Bldg |
| | April 27, 2017 | 11:00 am (MT) | Special Telephonic |
| | June 22, 2017 | 8:00 am (MT) | E&O Bldg |
| | June 28, 2017 | 3:00 pm (MT) | Special Telephonic |
| | September 21, 2017 | 8:00 am (MT) | E&O Bldg |
| | December 14, 2017 | 9:00 am (MT) | E&O Bldg, lunch |

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Approve Minutes—Chairperson Casey Peterson

Attached are the Minutes for the following SDSTA Board meetings:

- June 22, 2017
- June 28, 2017 (telephonic)

Recommended Action:

Motion to approve the Minutes of the June 22 and June 28, 2017 meetings as presented.

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South Dakota Science and Technology Authority Board of Directors
Meeting Minutes
Thursday, June 22, 2017
Lead, South Dakota

The Board of Directors of the South Dakota Science and Technology Authority (SDSTA) convened at 8:02AM Mountain Time (MT) on Thursday, June 22, 2017 in the Education and Outreach (E&O) Building Conference Room at the South Dakota Science and Technology Authority, 630 East Summit Street, Lead, South Dakota.

MEMBERS OF THE BOARD IN ATTENDANCE IN PERSON

Mr. Paul Christen
Secretary/Treasurer Patricia Lebrun
Chairperson Casey Peterson
Dr. Jan Puszynski
Vice Chairperson Ron Wheeler

MEMBERS OF THE BOARD IN ATTENDANCE BY TELEPHONE

Vice Chairperson Dana Dykhouse (by phone)
Dr. Robert Wilson (by phone)

SDSTA STAFF

Mr. Tim Engel, Legal Counsel
Ms. Nancy Geary, Chief Financial Officer
Mr. Mike Headley, Executive Director
Dr. Jaret Heise, Science Director
Ms. Sharon Hemmingson, Business Services & Contracts Manager
Ms. Mandy Knight, Administrative Services Manager
Mr. Dan Regan, Surface Operations Foreman
Mr. KC Russell, Cultural Diversity Coordinator
Mr. Allan Stratman, Engineering Director

ALSO PRESENT DURING ALL OR PART OF THE MEETING

Dr. June Apaza, Education and Outreach Director (BHSU)
Dr. Peggy Norris, Education and Outreach Deputy Director (BHSU)
Mr. Joshua Willhite, Long Baseline Neutrino Facility (LBNF) Far-Site Conventional Facilities (FSCF) Project Manager
Mr. Al Van Zee, Journalist for Black Hills Pioneer
Ms. Donna Christen, wife of Board Member Mr. Christen
Mr. Jim Sheridan, guest of Board Member Mr. Christen
Mr. Patrick Weber, Policy Analyst (Office of the Governor)

ITEM 1. CALL TO ORDER

Chairperson Peterson called the meeting to order at 8:02 AM (MT). Roll call was held. All attendees were present in person except Mr. Dana Dykhouse and Dr. Robert Wilson, who joined by telephone. Dr. Ani Aprahamian was absent.

Ms. Lebrun returned to the meeting at 8:03am.

Chairperson Peterson introduced Head of Research and now Interim President for South Dakota School of Mines and Technology (SDSM&T) Dr. Jan Puszynski. Chairperson Peterson said he has an impressive biography and welcomed Dr. Puszynski to the SDSTA board. Dr. Puszynski said he is proud

to serve but it will be difficult to follow in the steps of the Secretary of Air Force and said it was a great pleasure to work with her (Dr. Heather Wilson). Dr. Puszynski said he has spent 26 years at SDSM&T and said the school holds a special place in his heart.

Chairperson Peterson then asked audience members to introduce themselves.

ITEM 2. APPROVE AGENDA

Chairperson Peterson asked if there were any modifications to the agenda and hearing none asked for a motion to approve the agenda.

Motion by Mr. Wheeler and second by Mr. Christen to approve the agenda as presented. Motion passed unanimously.

ITEM 3. APPROVE MINUTES

Chairperson Peterson asked for comments, changes or corrections to the Minutes of the March 16, 2017 and April 27, 2017 meetings. There were none.

Motion by Ms. Lebrun and second by Mr. Wheeler to approve the Minutes of the March 16, 2017 and April 27, 2017 meetings as presented. Motion passed unanimously.

ITEM 4. CONFLICT OF INTEREST DISCLOSURE

SDSTA Legal Counsel Mr. Tim Engel said at one of the first State Board of Internal Control meetings, informal guidance was given that it would be good practice for all state-related boards and commissions to have a conflict of interest disclosure at the beginning of their agenda at every meeting. Mr. Engel said it is not the same as the waiver that is the next agenda item. He then asked if any board member has a conflict of interest to disclose.

Mr. Wheeler reminded the board that he does have a disclosable interest with his SDSTA contract as the External Affairs Director which was discussed at a previous board meeting. Mr. Engel replied that Mr. Wheeler should disclose annually and no action is needed until his contract comes up for renewal.

Mr. Engel said the next agenda item (No. 5) was passed in 2016 and led to unintended consequences and now that law is going to change July 1. After that, the disclosure requirements are less onerous, but there is a new requirement beginning July 1 that if a board member or its company contracts with state agencies or political subdivisions, then board members should mention it. In Mr. Wheeler's case, he should disclose his contract at the next meeting. Chairperson Peterson may need to disclose at the next board meeting.

He concluded by noting that no board members disclosed a conflict other than Mr. Wheeler.

ITEM 5. WAIVER UNDER SDCL CH. 3-23

Mr. Engel said SDCL CH. 3-23 is the conflicts of interest legislation for boards and commissions passed a year ago and, as mentioned earlier, it will change on July 1, 2017. Mr. Engel said Dr. Puszynski had completed a waiver request form, and the form and the SDSM&T Grant Report have been included in the board packets. Mr. Engel reminded the Board that Dr. Puszynski takes a salary from the South Dakota School of Mines and Technology (SDSM&T) and that he is required by statute to disclose and request a waiver for research contracts entered into by SDSM&T.

On behalf of Dr. Puszynski, Mr. Engel requested that the board grant him request for a waiver.

Motion by Mr. Wheeler and second Mr. Christen to grant the waiver for Dr. Puszynski. Motion passed unanimously.

ITEM 6. STATE BOARD OF INTERNAL CONTROLS UPDATE

Mr. Engel gave a brief update on the state Board of Internal Control and restated it was created in the 2016 Legislative session. More recently, it has adopted official forms for contracts and grants. He said if granting a contract, a risk analysis form is completed and then it is scored. The SDSTA may not be required to use the form since the state requirements may be preempted by Federal law. Mr. Engel said they are still awaiting the hiring of a consultant/contractor for guidance on Internal Controls for entities like the SDSTA. He said it could be an exercise in futility for the SDSTA to adopt its own internal controls policy and the SDSTA is going to be required to adopt the State's policy. Mr. Engel said his recommendation is to hold off.

Ms. Lebrun asked how will potential internal controls differ from the internal controls that are already in place in the SDSTA Financial Office? Mr. Engel replied that he did not know the answer but did affirm that the Bureau of Finance and Management is going to hire a consultant/contractor to establish an internal control program for it and train the internal control staff to provide guidance to state agencies and state-related boards like SDSTA.

ITEM 7. AUDIT COMMITTEE REPORT

ITEM 7A. Appoint Members to Audit Committee

Chairperson Peterson said he spoke to Ms. Lebrun and Mr. Christen and they agreed to accept reappointment to serve on the Audit Committee with Ms. Lebrun continuing as the Chair. Chairperson Peterson voiced his appreciation of their continued service.

ITEM 7B. Annual Review of Audit Charter

Chairperson Peterson asked Ms. Lebrun if there was anything that needed to be discussed in regard to the Audit Charter. Ms. Lebrun replied that the Audit Committee will teleconference in early September prior to the September 21 board meeting, discuss with SDSTA Chief Financial Officer Ms. Nancy Geary the conversation that needs to happen with SD Legislative Auditor Mr. Al Schaefer to start the audit running, and Ms. Geary will inform the Committee when the Audit needs to start and finish to meet the federal guidelines. Ms. Lebrun said the committee will provide an update at the September board meeting.

Ms. Lebrun also reported that she receives a monthly report from Lighthouse on ethics hotline activity and thus far nothing has been reported. Mr. Headley and Ms. Hemmingson said they also receive a monthly report. Chairperson Peterson asked, as an example, if there was a call-in at the beginning of the month, would Lighthouse contact SDSTA staff immediately or wait until the following month to report it?

Ms. Hemmingson said she did not know how and when Lighthouse would make contact, but she would find out and inform the board.

ITEM 8. FINANCIAL REPORT

ITEM 8A. Financial Statements

Mr. Headley introduced Ms. Geary. She reported that with respect to the CAPEX budget, the Radon Reduction System and the Radon Reduction Building for the LZ experiment are finished. She said there is nothing new to report in terms of financials. At the end of June, SDSTA will need to finalize books, work on the audit, recalculate the indirect cost rate and the employee benefit rate going forward.

Mr. Wheeler commented that if board members get an opportunity to talk to any of the Congressional Delegation, it would be good to mention that the SDSTA has been operating on \$15M for a long time

and as costs continue to rise, it would be appropriate to ask Congress for an increase. Mr. Headley said as part of the 5-year budget discussions with Fermilab, the SDSTA has communicated the need for additional funds and the proposed 5-year budget includes escalation. In recent discussions with the Department of Energy's Office of High Energy Physics, Mr. Headley communicated the need for additional operations funds in the future.

Dr. Wilson asked that once excavation starts, are there budgeted additional costs for operations and could that be a justification for the additional cost above normal escalation? Mr. Headley replied the additional cost that come from supporting the project (LBNF excavations) are built into the contracts with the LBNF Project through Fermilab. The SDSTA is not expecting operations cost to increase. Mr. Headley said the costs are covered, but through the project instead of through the operations funding.

Chairperson Peterson asked if the Ellison Hill expenditure is reflected in the financials as presented for May 31 and if the Captive has been removed from the books, and Ms. Geary confirmed both to be the case.

Mr. Wheeler congratulated Mr. Engel, Mr. Headley and Ms. Geary for completing the Ellison Hill purchase. Chairperson Peterson concurred simultaneously as Mr. Engel handed the Ellison Hill Property deed to the Chair. Chairperson Peterson said he is looking forward to the tour and becoming reacquainted with the property after the meeting adjourns.

ITEM 8B. Fiscal Year 2018 Budget

Ms. Geary then reviewed the FY2018 Budget line items in the board packet. The SDSTA-funded items were presented along with federally-funded items and CAPEX projects with a comparison between FY2017 and the proposed FY2018. Ms. Geary said the SDSTA-funded budget is slightly lower than last year. Mr. Wheeler interjected that a large portion (90%) of the Board of Directors budget is due to the Lewis-Burke Associates advocacy contract. Ms. Geary concurred and continued through the line items and answered questions.

Mr. Christen asked if the SDSTA has collected all monies from foundations for the xenon, and Ms. Geary replied yes. She said SDSTA has begun paying interest to the foundations on a quarterly basis. Mr. Wheeler said our average cost for the xenon was \$5.65. Ms. Hemmingson commented that the current market rate for xenon ranges between \$9.20 and \$13.00 per liter.

Mr. Dykhouse asked if the Great Plains Education Foundation (GPEF) was for the Visitor Center and Ms. Geary replied no, the GPEF has helped fund the Education and Outreach Department operations for the last three years and has one more year of funding in 2018.

Chairperson Peterson then asked about the dollar amount for the fringe benefits and overhead. Ms. Geary said it included completion of the Administration parking lot improvement and the Administration Building roof repair. She said it also includes capitalization and depreciation.

Chairperson Peterson asked for clarification on types of solid waste that are shipped off site. Mr. Headley replied that iron sludge is removed along with debris that is pulled from the shaft. There are small amounts of chemical waste that are shipped off site once a year.

Mr. Wheeler asked if a motion had been made for the financial summaries and Chairperson Peterson replied no.

Motion by Mr. Wheeler and second by Ms. Lebrun to accept the financial summaries and approve the Fiscal Year 2018 budget as presented. Motion passed unanimously.

ITEM 9. REPORT FROM THE EXECUTIVE DIRECTOR

ITEM 9A. SDSTA May Monthly Report and Sanford Lab Update

Mr. Headley began with a slide presentation and discussed safety performance and said there have been two recordables for the year including one recent hand injury. Also, the management team continues to focus on field observations. The Environment, Safety and Health (ESH) staff recently held a strategic planning session for the ESH Department offsite, and Mr. Headley said he is hoping to get some new ideas to improve the safety program. Dr. Wilson asked if an investigation is performed when an injury occurs, and Mr. Headley confirmed and explained the investigation process. Dr. Wilson said it would be useful to hear about near misses and Mr. Headley replied that they are included in the ESH reports that the board receives monthly. He encouraged Dr. Wilson to contact the SDSTA if he would like more details on a particular event.

Mr. Headley reported the next Environment, Safety and Health Oversight Committee (ESHOC) review will be held July 12-14 at Sanford Lab.

He then discussed the Federal Funding: FY2017 Appropriation: SURF \$15M, LBNF/DUNE \$50M, LZ \$12.5M and the FY2018 President's Budget Request: SURF \$15M, LBNF/DUNE \$55M, LZ \$14.1M.

From the DUNE collaboration view, Dr. Wilson commented although there have been large federal cuts in other science programs, the level of support from Congress is a very strong sign within the collaboration. At Fermilab's 50-year celebration, the Secretary of Energy sent a video mentioning LBNF/DUNE, which was a strong statement of support that affected the mood of the collaboration. Chairperson Peterson thanked Dr. Wilson for the insight, and Mr. Headley continued his report on LBNF Construction: LBNF Groundbreaking planned for July 21; Fermilab to announce the selected LBNF Construction Manager soon; facility construction is expected to start this summer; some of the reliability projects that were planned to be contracted by SDSTA are now going to be contracted through Fermilab; excavation to begin in April 2019. Mr. Headley said the Ross Shaft refurbishment is below the 4550L (90% complete) and installation of steel should be completed by the end of this calendar year.

In regard to the Compact Accelerator for Performing Astrophysical Research (CASPAR), accelerator assembly is completed and operating in a commissioning phase. An initial operations celebration is being planned for July 12 and invitations have been sent.

Mr. Headley gave a brief update on LUX and LZ: the LUX detector has been removed from the underground and is on display at the Visitor Center. Decommissioning is nearing completion. LZ has commenced experiment construction. Surface facilities are largely completed and on schedule; LZ modifications to the 4850L Davis Campus will commence in late 2017; Xenon procurement remains on track; received \$800K of \$1.5M; LZ installation underground planned for 2018-2019. LZ operations expected in 2020.

Mr. Headley said MJD has not changed much since the last board meeting and noted that their assembly is completed. He said the Ellison Hill property purchase is completed; the SDSTA total footprint is 223.2 acres (surface) and SDSTA is now focusing on asbestos abatement.

In regard to cultural activities, Mr. Headley said SDSTA Cultural Diversity Coordinator Mr. KC Russell has been busy visiting and presenting at Oglala Lakota Nation's Little Wound, Wanblee and Pine Ridge schools.

From the beginning of the school year to present—the STARBASE outreach to Indian Country—NOVA Honor (West River area) has provided 25 academies reaching 538 students and NOVA Courage (East River area) has provided 24 academies reaching 400 students. Mr. Russell said STARBASE has movable classrooms that are moved to locations as needed.

ITEM 9B. South Dakota National Guard Facility Project Update

Mr. Headley introduced SDSTA Surface Operations Foreman Mr. Dan Regan. He began his slide presentation and said the project being discussed started a few weeks ago in cooperation with the

National Guard Golden Coyote program. The National Guard program started in 1984 and provides learning opportunities for National Guard soldiers.

He said the scope of work included refurbishment of the roadway from the shop yard down to the Waste Water Treatment Plant (WWTP) and if time and resources allowed, to construct a road with a 15% grade to the Oro Hondo. He reported on and showed pictures of the portions of the project that were completed.

Mr. Regan noted that former SDSTA Contracts Specialist Ms. Lea Mathis started the initial process of this project in 2015 before her untimely passing. The project was later picked up by SDSTA staff and the approval process was finalized in 2017. He said the project has been a cooperative effort by SDSTA, the National Guard and Barrick.

Mr. Regan concluded that future goals are to complete projects that have been approved and said the National Guard has been appreciative of the opportunity to train their staff.

ITEM 9C. Education & Outreach (E&O) Update

Mr. Headley introduced E&O Director Dr. June Apaza, who began her presentation by recapping the school year—September 2016 through the end of May 2017. She discussed curriculum units, assembly programs, field trips and workshops. Dr. Apaza then discussed E&O's accomplishments throughout the school year and upcoming projects. Of note, the E&O Department was recognized with the Friend of Science award by the South Dakota Science Teachers Association. Dr. Apaza also said that E&O is exploring options for wider distribution of their educational resources. Dr. Apaza concluded her report by answering several questions to board members.

Motion by Ms. Lebrun and second by Mr. Christen to accept the executive director's report as presented. Motion passed unanimously

ITEM 10. APPROVAL OF AMENDMENT TO LBNF TEMPORARY CONSTRUCTION EASEMENT

Mr. Headley said the LBNF Temporary Construction Easement was approved at a previous board meeting, and the LBNF project has now concluded how the facility will be upgraded. He said this document and appendix expands the easement areas.

Chairperson Peterson asked if the blue areas on the Surface Architectural Site Plan are part of the lease, and Mr. Headley said that two of three areas are in the current lease. An Amendment to the Land Lease was recently received (a special telephonic board meeting will be required to approve the Amendment) to include the third blue area on the plan as being described. He said this adds a portion of the Ross Dry to the lease space for LBNF to construct some office space for their staff.

Chairperson Peterson asked if the areas described on the plan are the only ones amended, and Mr. Headley replied the appendix does not represent any change in scope. The appendix and document better define the areas that will be impacted by the project. Mr. Engel added that in the easement itself, it reads "increase the area covered" and makes reference to various drawings and he is comfortable with the language in the document.

Motion by Mr. Wheeler and second by and Ms. Lebrun to approve the amendment to the LBNF Temporary Construction Easement and authorize the chairperson to sign Supplemental Agreement No. 1. Motion passed unanimously.

Chairperson Peterson asked if the Amendment to the Land Lease could be approved at this meeting? Mr. Engel replied that 48-hours of notice is required to add action items to the agenda. Mr. Headley said a special telephonic board meeting will be set up for next week to approve the Amendment.

ITEM 11. APPROVAL OF FY2018 OFFICE OF RISK MANAGEMENT INTERGOVERNMENTAL AGREEMENT

Mr. Headley said there is nothing substantive to the changes in the FY2018 Office of Risk Management Intergovernmental Agreement but because it is a new agreement, the board will need to approve it.

Motion by Mr. Christen and second by Mr. Wheeler to approve the FY2018 Intergovernmental Agreement between the Bureau of Administration, Office of Risk Management of the State of South Dakota and SDSTA, and authorize the SDSTA Executive Director to sign the agreement. The motion passed unanimously.

ITEM 12. POLICIES AND PROCEDURES

ITEM 12A. Annual Review of Policies and Procedures

Mr. Headley said SDSTA Administrative Services Manager Ms. Mandy Knight has been doing a great job working with the SDSTA team to continue to streamline and update policies and procedures. One item to note is 4.4 Leave Policy was updated by Executive Order 2017-02 to increase the personnel sick leave rate from 4.31 hours per bi-weekly pay period to 4.32. Mr. Headley said the reason behind this is recently, SDSTA was directed by Fermilab to go to a weekly payroll for the Ross Shaft rehabilitation work. The Ross Shaft is considered a construction project and the Davis-Bacon Act applies. Mr. Headley commented that 4.32 hours divided evenly to support weekly payrolls where the previous 4.31 hours did not.

Chairperson Peterson asked why Fermilab was concerned about Policy 3:28 Delegation of Authority and Mr. Headley and Ms. Hemmingson explained that the original wording was deemed slightly confusing by some, and has been updated to clarify separation of duties related to finance and contract management activities.

New and Updated Policies recommended for approval:

- 2:4 Security and Site Access Policy, *updated (included badging language)*
- 2:5 Use of Company-Owned Information Technology Systems and Protection of Personal Privacy Policy, *updated (replaced “electronic equipment” to read “information technology systems”)*
- 3:8 Salary and Hourly Payroll Policy, *updated (included eligibility and conducting annual performance reviews)*
- 3:28 Delegation of Authority, *updated (added to address Fermilab’s concern that the language in A., B. and F gives the Exec Director/Board Chair/Board authority to act on their own to execute an action without clear separation of duties. Policy 5.6 addresses separation of duties)*
- 4:1 Personnel Benefits Policy, *updated (clarified wording in “Retirement” section (...benefits unchanged, Section K, added Employee Training, added Employee Assistance Program section—from employee handbook—corrected insurance coverage to read insurance ends last day of month)*
- 4:4 Leave Policy, *updated (per Exec Order 2017-2 updated sick leave accrual from 4.31 to 4.32 hours per bi-weekly pay period; policy to be ratified at June board meeting)*
- 4:6 Resignation Policy, *updated (added SDSTA property must be returned at time of resignation or termination...provided, however that doing so may not result in the employee receiving less than the applicable hourly minimum wage for the time period covered by the final paycheck. Any remaining dollar amount not covered in the final paycheck will be invoiced directly to the employee)*
- 5:1 Procurement Policy, *updated (deleted part of section C to address Fermilab’s concern that the first and second sentences conflict and the second sentence removed if nobody else can assume responsibility for negotiating...Approval is addressed separately in a separate policy)*

- 5.5 Utilization of Small Business Concerns Separation of Duties, *updated (removed all references to the FAR)*
- Nepotism Policy, *new (created from employee handbook)*
- Dress Code Policy, *new (created from employee handbook)*

Chairperson Peterson noted that Policy 3:28 was not included in the board packet and Mr. Engel said he had reviewed all the policies. (An electronic version of Policy 3:28 was sent and hard copied distributed to board members present shortly after and there were no concerns expressed).

Motion by Ms. Lebrun and second by Mr. Christen to approve the new and updated policies as presented. The motion passed unanimously.

ITEM 12B. Sign Annual Statements

Mr. Engel said this Item is a reminder that board members are required to sign the annual statement affirming compliance with SDSTA Policy 3:27 Financial Conflict of Interest. Ms. Knight printed hard copies and distributed for board members to sign.

ITEM 13. EXECUTIVE SESSION

Motion by Mr. Christen and second Ms. Lebrun to enter into executive session to discuss personnel matters and to consult with legal counsel concerning contractual matters. Motion passed unanimously.

The board recessed at 9:50 AM for Executive Session and reconvened at 10:46 AM.

ITEM 14. REPORT FROM EXECUTIVE SESSION

Chairperson Peterson reported that the board consulted with legal counsel concerning legal and contractual matters. No action was taken.

Motion by Mr. Christen and second by Mr. Wheeler to approve the executive session report. Motion passed unanimously.

ITEM 15. UPDATE ON SDSTA BUSINESS ADVISORY COUNCIL PROPOSAL

Chairperson Peterson said he had appointed a committee made up of Mr. Christen, Mr. Headley and Vice-Chairperson Wheeler to study the business advisory council proposal and then asked Mr. Wheeler to provide an update. Mr. Wheeler reported that the committee believes the purpose of the council is to further economic development in South Dakota. Mr. Wheeler said the committee agreed that a group of high-level participants should be formed from entities that will be able to define what opportunities for economic development exist during LBNF construction and operation. He said the primary players that will be able to define the suppliers, contractors and services required include Fermilab project management, the construction manager for LBNF and the experiment itself, DUNE.

Mr. Wheeler said the business advisory council should consist of no more than six high-level people mentioned above. He said he thought a formal charter and paying participants were unnecessary. Mr. Wheeler said Mr. Headley could convene a meeting of all local development officials in the next six months and present this list of opportunities for economic development.

Mr. Christen stated the magnitude of the project requires participation of high-level people if the goal is to make the council valuable to Sanford Lab.

Mr. Wheeler said in conclusion and commented to Dr. Wilson that one of the recommendations as the DUNE experiment and plans develop, is that DUNE leaders could help identify suppliers, services needed, etc. Dr. Wilson suggested when the time is right to send a formal request to the DUNE collaboration spokesperson.

Chairperson Peterson said the new council was not entirely what he was thinking and this type of council being discussed is more of a focused project. Chairperson Peterson said he was thinking more of gaining the maximum economic development from this major construction and experiment. Chair Peterson said there are some opportunities that SDSTA is not thinking about that could drive economic development in the region. Dr. Puszynski said he had some ideas and Chair Peterson said he would like to meet with him to discuss ideas concerning other science projects. He mentioned that the Chinese scientists have developed a new nano-based unhackable internet beam with has much potential. However, Chair Peterson said he supports the concept described by Mr. Wheeler and considers it done and thanked the committee members for their time and effort.

ITEM 16. REPORT FROM NOMINATING COMMITTEE

Mr. Dykhous reported that he and Dr. Aprahamian, comprising the Nominating Committee, teleconferenced on May 10 to discuss nominations. Mr. Dykhous proposed the following slate of officers for the fiscal year beginning July 1, 2017:

Chairperson: Mr. Casey Peterson
Vice-Chairperson: Mr. Dana Dykhous
Vice-Chairperson: Mr. Ron Wheeler
Secretary Treasurer: Ms. Patricia Lebrun

ITEM 17. ELECT OFFICERS

Chairperson Peterson asked if there were nominations from the floor. There were none and following the prescribed election procedure a motion was made:

Motion by Mr. Dykhous and second by Dr. Wilson to accept the report from the nominating committee and to elect the slate of officers as presented. Motion passed unanimously.

ITEM 18. CONFIRM DATE AND TIME OF NEXT MEETING

Chairperson Peterson asked if anyone had concerns with the next board meeting scheduled for Thursday, September 21, 2017 at 8:00 AM (MT). There were none.

Chairperson Peterson and Mr. Headley discussed the July 12 CASPAR initial operations event as well as the July 21 LBNF Groundbreaking. It was requested that those attending RSVP to Ms. Knight.

A Special Telephonic Board Meeting will be held on Wednesday, June 28 at 3pm (MT) to approve the Amendment to the Land Lease. Chairperson Peterson said there is a quorum available, and board members that can call-in include Mr. Dykhous, Dr. Wilson, Mr. Christen, Ms. Lebrun and himself.

ITEM 19. BOARD COMMENTS

Mr. Wheeler said this was a good meeting, great presentations and the lab is making great progress. He said Sanford Lab is moving in the right direction and support in Washington D.C. is still really good. He thanked Ms. Knight for her help.

Dr. Puszynski reiterated Mr. Wheeler's words, and said SDSM&T is doing quite a bit of advertisement in the state for education. He said SDSTA needs to focus on advertising across the country to recruit talented people as well as teach others about what is going on here.

Mr. Paul Christen said it was a good meeting and is impressed with Sanford Lab's engagement with the National Guard; a great opportunity. He said he is more impressed with the E&O program and that it has come a long way. He said this is how to gain real support across the state and engage young people in the importance of math and science. He said he is impressed that Sanford Lab has the support of the DOE and hopes the President's budget grows because Sanford Lab needs the funds.

Mr. Headley thanked Ms. Knight for providing administrative support and keeping the SDSTA Board organized in addition to the staff for the work they are doing. He said he is proud of the team. He also thanked the board for their support.

Ms. Lebrun reiterated Mr. Headley's words, thanked the SDSTA staff and welcomed Dr. Puszynski on the board. Ms. Lebrun said in late May she had the opportunity to attend the International Collegiate Programming Contest (ICPC) in Rapid City that showcased the best university students in computing. Ms. Lebrun said she visited with the coaches at the competition and one of the coaches from Russia said they start their students in computer classes at an early age (grades 3-7). Ms. Lebrun concluded that it is critical that we get our students excited about math and science early on so they can compete internationally.

Mr. Engel said he appreciates the opportunity to work on the project.

Dr. Wilson congratulated the lab on all the progress and said he is continued to be impressed by the creativity of the board and ways they are supporting Sanford Lab. He said DUNE allows him to interact with 31 countries and 165 institutions and, as a member of the SDSTA Board, he can report directly to the DUNE Executive Committee on the level of activity that is happening within the state and support that is being provided to the facility to build the experiment. He thanked members and said it is a privilege to serve on the SDSTA board.

Mr. Dykhouse reiterated all the board members comments and said the National Guard Golden Coyote project was headlined in the Rapid City Journal and with the coverage it is excellent public relations for SDSTA. He said July is an exciting month with lots of activity and lab attention.

Chairperson Peterson thanked everyone and said July appears to be an intense one and wishes the staff the best.

ITEM 20. ADJOURN

Chairperson Peterson asked if anyone had any other questions or comments, then called for a motion to adjourn.

Motion by Mr. Wheeler and second by Ms. Lebrun to adjourn. Motion passed unanimously.

Meeting adjourned at 11:11 AM.

**South Dakota Science and Technology Authority Board of Directors
Special Telephonic Meeting Minutes
Thursday, June 28, 2017
Lead, South Dakota**

The Board of Directors of the South Dakota Science and Technology Authority (SDSTA) convened at 3:04pm Mountain Time (MT) on Wednesday, June 28, 2017, via teleconference. Listening posts for the public were established at the office of the SDSTA at 630 E. Summit Street, Lead, South Dakota, and at the Dolly-Reed Plaza in the Treehouse conference room, 711 East Wells Avenue, Pierre, South Dakota.

MEMBERS OF THE BOARD IN ATTENDANCE BY TELEPHONE

Mr. Paul Christen
Secretary/Treasurer Patricia Lebrun
Chairperson Casey Peterson
Dr. Robert Wilson

MEMBERS OF THE BOARD ABSENT

Dr. Ani Aprahamian
Vice-Chairperson Dana Dykhouse
Dr. Jan Puszynski
Vice-Chairperson Ron Wheeler

SDSTA STAFF IN ATTENDANCE

Mr. Tim Engel, Legal Counsel (by phone)
Ms. Nancy Geary, Chief Financial Officer
Mr. Mike Headley, Executive Director
Ms. Sharon Hemmingson, Business Services and Contracts Manager
Ms. Mandy Knight, Administrative Services Manager
Ms. Connie Walter, Communications Director

ITEM 1. CALL TO ORDER

Chair Peterson called the meeting to order at 3:04pm (MT). Chair Peterson declared a quorum was present, consisting of board members Mr. Christen, Ms. Lebrun, Chairperson Peterson and Dr. Wilson. Those absent were Dr. Aprahamian, Vice-Chair Dykhouse, Dr. Puszynski and Vice-Chair Wheeler.

Chair Peterson skipped Item 1B introducing guests to save time in the event Ms. Lebrun's cell phone disconnected.

ITEM 2. APPROVE AGENDA

Chair Peterson asked for a motion to approve the agenda.

Motion by Mr. Christen and second by Ms. Lebrun to approve the agenda as presented. By roll call vote, the motion passed unanimously.

ITEM 3. APPROVE AMENDMENT NO. 1 OF THE LAND LEASE BETWEEN SDSTA AND DOE

Chair Peterson asked SDSTA Executive Director Mike Headley to discuss Item No. 3. Mr. Headley said the main topic today was to consider an amendment to the lease between the DOE and SDSTA for additional space at Sanford Lab for the Long Baseline Neutrino Facility/Deep Underground Neutrino Experiment (LBNF/DUNE) Project. He said the project has been working on a solution to come up with office space for staff and is requesting, through the DOE lease, to add additional space at the Ross Dry

Building. The additional space is approximately 1240 square feet on the main level and 320 square feet on the lower level/basement.

Mr. Headley said the space proposed to be added to the lease is not being used by SDSTA staff on a regular basis. Some staff meetings are held in the larger space, but those meetings can be easily moved to other conference rooms, and he said SDSTA activities should not be impacted by including these spaces in the lease. Mr. Headley said he concurred with the approval of this amendment to support office space and asked for the board's approval.

Dr. Wilson asked the length of the lease and SDSTA Legal Counsel Tim Engel replied it is a long-term lease.

Dr. Wilson asked if renovation to the spaces is needed and Mr. Headley replied yes. He said the spaces are open rooms and the rooms require some HVAC equipment and possibly construction of modular office space. Mr. Headley said the responsibility of that would be solely with the LBNF project. LBNF would perform and/or pay for the work.

Business Services and Contract Manager interjected that the initial term of the SDSTA/DOE lease mentioned above is a 20-year lease.

Dr. Wilson asked if the space is being leased "as-is," and Mr. Headley replied yes. Mr. Engel concurred with Mr. Headley, and said the amendment is just adding space and there is no indication that SDSTA will improve it.

Mr. Headley said he believes the provision is in the original lease and will verify that the space under the lease is "as-is."

Chair Peterson asked if there were further questions and then requested a motion.

Motion by Ms. Lebrun and second by Dr. Wilson to approve Amendment No. 1 of the Land Lease between the South Dakota Science and Technology Authority and the United State Department of Energy and authorize the Chairperson to sign the Amendment. By roll call vote, the motion passed unanimously

ITEM 4. ADJOURN

Chair Peterson called for a motion to adjourn and reminded board members the next regularly scheduled board meeting will be held on Thursday, September 21 at 8:00am (MT) in the Education and Outreach Building.

Motion by Dr. Wilson and second by Mr. Christen to adjourn. By roll call vote, the motion passed unanimously.

Meeting adjourned at 3:12pm (MT) on June 28, 2017.

Disclosure—Mr. Tim Engel

Attached is Mr. Casey Peterson's completed annual disclosure under SDCL CH. 3-23.

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ANNUAL DISCLOSURE FOR AUTHORITY/BOARD/COMMISSION MEMBER
PURSUANT TO SDCL CHAPTER 3-23

THIS IS A PUBLIC DOCUMENT

Name of Member: Casey C. Peterson

Name of Board, Authority or Commission: South Dakota Science and Technology Authority

The Member shall disclose below any contract in which the Member has an interest or from which the Member derives a direct benefit if the contract is:

- 1) With the state agency to which the Member's board, authority or commission is attached for reporting or oversight purposes and which contract requires the expenditure of government funds;
- 2) With the state and which contract requires the approval of the Member's board, authority or commission and the expenditure of government funds; or
- 3) With a political subdivision of the state if the political subdivision approves the contract and:
 - a. Is under the regulatory oversight of the authority, board, or commission, or
 - b. Is under the regulatory oversight of the agency to which the Member's board, authority or commission is attached.

The Member shall disclose the contract even though no additional authorization is needed from the Member's board, authority or commission to have an interest or derive a benefit from the contract.

The Member shall also identify every entity in which the Member possesses an ownership interest of five percent or greater if:

- 1) The entity receives grant money from the State, either directly or by a pass-through grant or
- 2) The entity contracts with the State or any political subdivision for services.

1. **Contracts in which you have an interest pursuant to SDCL Chapter 3-23 and which do not violate any other provision of law** - Provide the following for each contract in which you have, or will have, an interest. For further information see SDCL 3-23-2.1 and 3-23-3.1.

| Description of the contract | Parties | Description of your interest/role in the contract | Date contract was previously disclosed, if applicable |
|-----------------------------|---------|---|---|
| 1. | | | |

2. **Contracts in which you have a direct benefit pursuant to SDCL Chapter 3-23** - Provide the following for each contract from which you derive, or will derive, a direct benefit. For more information see SDCL 3-23-2, 3-23-2.2 and 3-23-3.1.

| Description of the contract | Parties | Description of the direct benefit | Date contract was authorized |
|-----------------------------|---------|-----------------------------------|------------------------------|
| 1. | | | |

3. **Entities in which you possess an ownership interest of five percent or more that receive grant money from the State, either directly or by a pass-through grant, or that contract with the State or any political subdivision for services** – Provide the following for each such entity. See SDCL 3-23-3.1.

| Description of the contract or grant | Party in which you possess the interest | State agency or subdivision |
|--------------------------------------|---|------------------------------------|
| 1. accounting/auditing services | Casey Peterson, LTD | South Dakota Ellsworth Development |
| 2. accounting/auditing services | Casey Peterson, LTD | City of Box Elder |
| 3. accounting/auditing services | Casey Peterson, LTD | City of Wall |
| 4. accounting/auditing services | Casey Peterson, LTD | City of Summerset |
| 5. accounting/auditing services | Casey Peterson, LTD | Town of Hermosa |
| 6. accounting/auditing services | Casey Peterson, LTD | Haakon School District |
| 7. accounting/auditing services | Casey Peterson, LTD | Wall School District |
| 8. accounting/auditing services | Casey Peterson, LTD | Hot Springs School District |
| 9. accounting/auditing services | Casey Peterson, LTD | Harding County School District |
| 10. accounting/auditing services | Casey Peterson, LTD | Rapid City Area School District |
| 11. accounting/auditing services | Casey Peterson, LTD | Meade School District |
| 12. accounting/auditing services | Casey Peterson, LTD | Custer School District |
| 13. accounting/auditing services | Casey Peterson, LTD | Hill City School District |
| 14. accounting/auditing services | Casey Peterson, LTD | Oelrichs School District |
| 15. accounting/auditing services | Casey Peterson, LTD | Belle Fourche Irrigation District |
| 16. accounting/auditing services | Casey Peterson, LTD | Green Valley Sanitary District |

| | | |
|----------------------------------|---------------------|--|
| 17. accounting/auditing services | Casey Peterson, LTD | Pennington County Housing and Redevelopment Commission |
|----------------------------------|---------------------|--|

The member shall complete a separate authorization request for any contract identified above that requires authorization from the Member's board, authority or commission in order for the Member to legally derive a direct benefit.

Signature of Member: Casey Peterson Date: 8/29/17

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Waiver—Mr. Tim Engel

Attached is Mr. Ron Wheeler's completed Disclosure and Request for Waiver under SDCL CH. 3-23.

Recommended Action:

Motion to grant waiver or decline to grant waiver.

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ROBERT B. ANDERSON
TIMOTHY M. ENGEL
MICHAEL F. SHAW
BRETT KOENECKE
CHRISTINA L. KLINGER
JUSTIN L. BELL
DOUGLAS A. ABRAHAM
KARA C. SEMMLER
KATIE J. HRUSKA
TERRA M. FISHER

August 7, 2017

OF COUNSEL
DAVID A. GERDES
CHARLES M. THOMPSON
GLENN W. MARTENS 1881-1968
KARL GOLDSMITH 1886-1966
BRENT A. WILBUR 1949-2006
TELEPHONE
605 224-8803
FAX
605 224-6289

Email: tme@mayadam.net

VIA EMAIL & FIRST CLASS MAIL
(MHeadley@sanfordlab.org)

Mike Headley
Executive Director
South Dakota Science & Technology Authority
630 East Summit Street
Lead, SD 57754

RE: Disclosure and Request for Waiver - Mr. Ron W. Wheeler
MAGT File: 4427

Dear Director Headley:

Enclosed please find an original Request for State Board Waiver filed with me by board member Ron W. Wheeler. The subject contract was originally disclosed and approved well before the 2016 legislature applicable to SDSTA board members went into effect on July 1, 2016, and was last amended well before that legislation went into effect. Out of an abundance of caution, however, Mr. Wheeler has filed the request within 45 days of the effective date of the 2017 amendments to SDCL Ch. 3-23.

Please include this request as an agenda item for the September 21 board meeting. There is no need for a special meeting to address this request.

By email copy of this letter, I am advising the members of the board of this request.

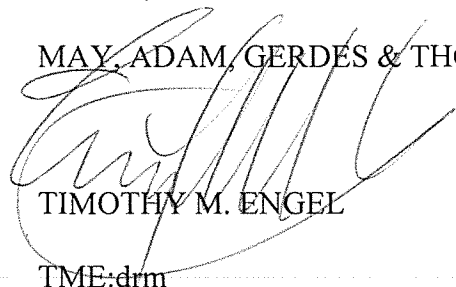
MAY, ADAM, GERDES & THOMPSON LLP
503 SOUTH PIERRE STREET • P.O. Box 160
PIERRE, SOUTH DAKOTA 57501-0160

Mike Headley
August 7, 2017
Page 2 of 2

Please do not hesitate to contact me with any questions.

Sincerely

MAY, ADAM, GERDES & THOMPSON LLP

A handwritten signature in black ink, appearing to read 'Timothy M. Engel', is written over the printed name and firm name.

TIMOTHY M. ENGEL

TME:drm

cc (email only): Ron W. Wheeler
 Casey Peterson
 Dana Dykhouse
 Pat Lebrun
 Paul Christen
 Ani Aprahamian
 Robert Wilson
 Jan Puszynski

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

REQUEST FOR STATE BOARD WAIVER
PURSUANT TO SDCL CHAPTER 3-23

THIS IS A PUBLIC DOCUMENT

Date: August 1, 2017

Name of Board Member or Former Board Member: Ron W. Wheeler

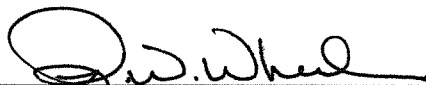
Name of Board, Authority or Commission: Science and Technology Authority

Brief explanation of contract for which a waiver is requested:

- a) Parties to the contract
South Dakota Science and Technology Authority ("SDSTA")
Ron W. Wheeler
- b) Board Member's role in the contract
Party to the Contract
- c) Purpose and objective of the contract
Assist in directing SDSTA's governmental affairs program; coordinate with elected officials and agencies; maintain and foster private funding sources
- d) Consideration or benefit conferred or agreed to be conferred upon each party
Ron W. Wheeler: provide services to SDSTA as described above
SDSTA: Payment of the sum of \$5,000.00 per month effective February 15, 2015, through January 15, 2019. All compensation paid and payable to Ron W. Wheeler under the contract is described in Modification #3, attached hereto and incorporated herein by this reference.
- e) Duration of the contract
January 4, 2014, through January 3, 2019
- f). Other
I believe the terms of the contract are fair, reasonable, and not contrary to the public interest because I am particularly qualified to provide the services and the fees paid are substantially similar to those charged by others providing similar services.

The terms of the contract were disclosed to the SDSTA board of directors and approved by the SDSTA Board of Directors on December 12, 2013 (before the contract was executed). The terms were again disclosed to the SDSTA board at its regular meeting

held on June 16, 2016. The contract has not been amended or the term extended since October of 2015.

Signature of Requesting Party  Date August 1, 2017
Ron W. Wheeler

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

STATE BOARD DISCLOSURE LAWS
WAIVER AUTHORIZATION
PURSUANT TO SDCL 3-23 (current member)

THIS IS A PUBLIC DOCUMENT

A written request for waiver dated _____, was received from

Ron W. Wheeler. The request was acted upon by the members of the South Dakota Science and Technology Authority board of directors during a meeting held on September 21, 2017.

(check one)

_____ The request for waiver was denied for the following reasons:

 X The request for waiver was authorized for the following reasons:

Mr. Wheeler is particularly qualified for the position given his long-standing relationship with SDSTA and his familiarity with government. The compensation paid and to be paid is substantially similar to that paid to others providing similar services. terms of the contract are fair, reasonable, and not contrary to the public interest.

_____ The request for waiver was authorized subject to the following conditions:

Signature of Chairperson or Authorized Member

Date

Printed Name: _____

Date sent to Auditor-General _____ Date sent to Attorney General _____

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Report from Audit Committee—Ms. Pat Lebrun

SDSTA Audit Committee Meeting

August 21, 2017

Participants:

Mr. Paul Christen, SDSTA Board of Director/Audit Committee Member
Mr. Al Schaefer, SD Department of Legislative Audit, Auditor-in-Charge
Ms. Nancy Geary, SDSTA Chief Financial Officer

A pre-audit teleconference was held August 21 with discussions on the following:

1. Ms. Lebrun was unable to join the teleconference as she continually got a busy signal when dialing in.
2. Greetings were exchanged and discussions were held concerning the scheduling of the upcoming FY2017 audit. Mr. Schaefer noted that in order to submit the report to the State for their October 18 deadline, we needed to start the audit in August. Our report is included in the State Comprehensive Annual Financial Report (CAFR). Today (Aug 21) is Mr. Schaefer's first day at SDSTA.
3. Mr. Schaefer noted that since our funding transferred from Lawrence Berkeley National Lab to Fermi Research Alliance, the contract was considered like a new grant. Thus, it is looked at as a first-year contract which is always considered a high risk. This will be a Uniform Guidance Audit. He also noted that it will take a little longer than last year's audit. He is targeting October 4 as his final audit date with the report submitted to meet the State deadline. If there are no findings, then it should go into the 3-year rotation like usual.
4. Mr. Schaefer asked if anyone had any concerns or if there was any suspected or known fraud. Mr. Christen noted no concerns or suspected fraud. If the Board has any issues or concerns, Mr. Schaefer can be contacted at his email, Al.Schaefer@state.sd.us or he can be reached at the lab's location, (605) 722-8650.
5. Mr. Schaefer noted that the rates for FY2018 have not been issued yet, but that the rate per hour would be close to the FY2017 rate of \$65.00/hr with a possible small increase to \$67.00/hr.
6. Mr. Schaefer will send an "Engagement Letter" to Mr. Christen for his review and signature.
7. The Audit Committee will meet again near the closeout time in early October for a follow up teleconference.

Recommended Action:
Informational.

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SDSTA Audit Committee Meeting

August 21, 2017

Participants:

Mr. Paul Christen, SDSTA Board of Director/Audit Committee Member
Mr. Al Schaefer, SD Department of Legislative Audit, Auditor-in-Charge
Ms. Nancy Geary, SDSTA Chief Financial Officer

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Financial Report—Mr. Mike Headley

Financial Report:

- 7A. Financial Summaries for August 2017, attached. They can also be found in Item 9A Report from Executive Director, SDSTA Quarterly Update.
- 7B. Fiscal Year End Inventory Listing, attached.
- 7C. Fiscal Year End Per Diem Listing, attached.

Recommended Action:

Motion to accept the Financial Report as presented.

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DIVISION: ALL

BALANCE SHEET

ASSETS

AS OF
08/31/17

CURRENT ASSETS

| | | |
|---------------------------|----|---------------|
| First Interstate Checking | \$ | 1,315,832.16 |
| First Interstate Other | | 10,516.52 |
| | | ----- |
| Total in Local Checking | | 1,326,348.68 |
| SD Treas: Indemnification | | 7,500,000.00 |
| SD Treas: Mine Closure | | 1,415,782.17 |
| SD Treas: Operating | | 480,685.27 |
| SD Treas: Sanford Gift #2 | | 407,871.97 |
| SD Treas: Experiments | | 3,466,294.86 |
| | | ----- |
| Total with SD Treasurer | | 13,270,634.27 |
| Billed A/R | | 1,435,671.44 |
| Unbilled A/R | | 423,167.68 |
| Other A/R | | 129,530.25 |
| Inventory - Supplies | | 2,408,322.74 |
| Inventory - Warehouse | | 31,608.73 |
| Other Current Assets | | 555,161.29 |
| | | ----- |
| Total Current Assets | | 19,580,445.08 |

FIXED ASSETS

| | | |
|---------------------------|--|-----------------|
| Land, Underground & Other | | 12,633,473.13 |
| Bldgs & Infrastructure | | 9,463,947.80 |
| Improvements | | 64,037,250.80 |
| Computer Equipment | | 434,783.19 |
| Equipment & Fixtures | | 11,082,739.99 |
| Accum Depr & Amort | | (13,201,789.01) |
| | | ----- |
| Total Fixed Assets | | 84,450,405.90 |

OTHER ASSETS

| | | |
|---------------------------|--|---------------|
| Work in Process | | 868,714.29 |
| Equipment - Capital Lease | | 175,226.07 |
| Pension Deferred Outflows | | 4,174,730.00 |
| Xenon Purchased | | 5,040,356.11 |
| | | ----- |
| Total Other Assets | | 10,259,026.47 |

TOTAL ASSETS

=====

\$ 114,289,877.45

=====

DIVISION: ALL

BALANCE SHEET

LIABILITIES & EQUITY

AS OF
08/31/17

CURRENT LIABILITIES

| | | |
|---------------------------|----|--------------|
| Accounts Payable | \$ | 1,301,624.54 |
| Other Payables | | 11,325.80 |
| | | ----- |
| Total Accounts Payable | | 1,312,950.34 |
| Accrued Payroll Liab | | 1,324,995.20 |
| | | ----- |
| Total Current Liabilities | | 2,637,945.54 |

OTHER LIABILITIES

| | | |
|--------------------------|--|--------------|
| LT Accrued EB/Lease | | 175,226.07 |
| LT Xenon Notes Payable | | 4,000,000.00 |
| Pension Deferred Inflows | | 1,698,193.00 |
| | | ----- |
| Total Other Liabilities | | 5,873,419.07 |

EQUITY

| | | |
|---------------------------|--|----------------|
| Restricted: Indemnificati | | 7,500,000.00 |
| Restricted: Mine Closure | | 1,415,782.17 |
| Restricted: Sanford Gift2 | | 407,871.97 |
| Restricted: Pension | | 2,476,537.00 |
| Restricted: Experim. Int. | | 3,404,373.00 |
| | | ----- |
| Total Restricted Funds | | 15,204,564.14 |
| Investment in Gen FA | | 84,450,405.90 |
| Unrestricted Funds | | 6,123,542.80 |
| | | ----- |
| Total Equity | | 105,778,512.84 |

TOTAL LIABILITIES & EQUITY

=====

\$ 114,289,877.45

=====

ALL

STATEMENT OF INCOME

FOR THE PERIOD ENDING 08/31/17

| | YR-TO-DATE |
|---------------------------------------|-----------------|
| REVENUE | |
| DOE Subcontracts | \$ 3,422,730.71 |
| NSF/NASA Subcontracts | 3,650.29 |
| State Revenue | 140.88 |
| Contributions & Donations | 125,000.00 |
| Checking Interest | 334.72 |
| Interest Income | 22,004.56 |
| | ----- |
| TOTAL REVENUE | 3,573,861.16 |
| DIRECT COSTS | |
| Direct Labor | 1,085,338.27 |
| ERT Labor | 2,277.70 |
| Board of Directors | 1,375.51 |
| Capital Outlay >\$5K | 90,970.65 |
| Contractual Svcs | 395,536.86 |
| Inventory | 30,430.77 |
| Supplies | 203,208.02 |
| Travel - Domestic | 6,104.93 |
| Travel - Foreign | 10,938.08 |
| Utilities | 317,975.52 |
| Other Direct Costs | 52,546.41 |
| Unallow/Unbill Costs | 62,672.95 |
| | ----- |
| TOTAL DIRECT COSTS | 2,259,375.67 |
| INDIRECT COSTS | |
| Fringe Benefits | 584,103.38 |
| Overhead | 865,864.50 |
| | ----- |
| TOTAL INDIRECT COSTS | 1,449,967.88 |
| | ----- |
| GROSS PROFIT/LOSS () FROM OPERATIONS | (135,482.39) |
| | ----- |
| OTHER INCOME | |
| Water Treatment | 28,566.50 |
| Miscellaneous Income | 150,108.82 |
| Other Operating Income | 571.08 |
| | ----- |
| TOTAL OTHER INCOME | 179,246.40 |
| OTHER EXPENSES | |
| Reclass Incr Net Assets | (329,693.78) |
| | ----- |
| TOTAL OTHER EXPENSES | (329,693.78) |
| | ===== |
| NET INCOME/LOSS () | 373,457.79 |
| | ===== |

DIVISION: ALL

COMPARATIVE BALANCE SHEET

ASSETS

| | AS OF 08/31/17 | AS OF 08/31/16 | \$ CHANGE | % CHANGE |
|---------------------------|-------------------|-------------------|----------------|----------|
| CURRENT ASSETS | | | | |
| First Interstate Checking | \$ 1,315,832.16 | \$ 1,404,971.22 | \$ (89,139.06) | -6.34% |
| First Interstate Other | 10,516.52 | 15,213.61 | (4,697.09) | -30.87% |
| | ----- | ----- | ----- | ----- |
| Total in Local Checking | 1,326,348.68 | 1,420,184.83 | (93,836.15) | -6.61% |
| SD Treas: Indemnification | 7,500,000.00 | 7,500,000.00 | - | 0.00% |
| SD Treas: Mine Closure | 1,415,782.17 | 1,398,522.89 | 17,259.28 | 1.23% |
| SD Treas: Operating | 480,685.27 | 361,693.54 | 118,991.73 | 32.90% |
| SD Treas: Sanford Gift #2 | 407,871.97 | 1,271,295.97 | (863,424.00) | -67.92% |
| SD Treas: Experiments | 3,466,294.86 | 3,589,304.84 | (123,009.98) | -3.43% |
| | ----- | ----- | ----- | ----- |
| Total with SD Treasurer | 13,270,634.27 | 14,120,817.24 | (850,182.97) | -6.02% |
| Billed A/R | 1,435,671.44 | 2,339,211.26 | (903,539.82) | -38.63% |
| Unbilled A/R | 423,167.68 | 168,526.37 | 254,641.31 | 151.10% |
| Other A/R | 129,530.25 | 161,545.77 | (32,015.52) | -19.82% |
| Inventory - Supplies | 2,408,322.74 | 2,408,322.74 | - | 0.00% |
| Inventory - Warehouse | 31,608.73 | 34,559.52 | (2,950.79) | -8.54% |
| Other Current Assets | 555,161.29 | 463,649.77 | 91,511.52 | 19.74% |
| | ----- | ----- | ----- | ----- |
| Total Current Assets | 19,580,445.08 | 21,116,817.50 | (1,536,372.42) | -7.28% |
| FIXED ASSETS | | | | |
| Land, Underground & Other | 12,633,473.13 | 12,398,635.03 | 234,838.10 | 1.89% |
| Bldgs & Infrastructure | 9,463,947.80 | 8,881,327.62 | 582,620.18 | 6.56% |
| Improvements | 64,037,250.80 | 63,284,094.82 | 753,155.98 | 1.19% |
| Computer Equipment | 434,783.19 | 461,416.25 | (26,633.06) | -5.77% |
| Equipment & Fixtures | 11,082,739.99 | 10,528,964.60 | 553,775.39 | 5.26% |
| Accum Depr & Amort | (13,201,789.01) | (11,349,078.30) | (1,852,710.71) | 16.32% |
| | ----- | ----- | ----- | ----- |
| Total Fixed Assets | 84,450,405.90 | 84,205,360.02 | 245,045.88 | 0.29% |
| OTHER ASSETS | | | | |
| Work in Process | 868,714.29 | 784,156.03 | 84,558.26 | 10.78% |
| Equipment - Capital Lease | 175,226.07 | 313,897.83 | (138,671.76) | -44.18% |
| Pension Deferred Outflows | 4,174,730.00 | 6,287,854.00 | (2,113,124.00) | -33.61% |
| Xenon Purchased | 5,040,356.11 | 1,606,663.11 | 3,433,693.00 | 213.72% |
| | ----- | ----- | ----- | ----- |
| Total Other Assets | 10,259,026.47 | 8,992,570.97 | 1,266,455.50 | 14.08% |
| TOTAL ASSETS | | | | |
| | ===== | ===== | ===== | ===== |
| | \$ 114,289,877.45 | \$ 114,314,748.49 | \$ (24,871.04) | -0.02% |
| | ===== | ===== | ===== | ===== |

DIVISION: ALL

COMPARATIVE BALANCE SHEET

LIABILITIES & EQUITY

| | AS OF 08/31/17 | AS OF 08/31/16 | \$ CHANGE | % CHANGE |
|--------------------------------|-------------------|-------------------|-----------------|----------|
| <hr/> | | | | |
| CURRENT LIABILITIES | | | | |
| Accounts Payable | \$ 1,301,624.54 | \$ 1,434,301.01 | \$ (132,676.47) | -9.25% |
| Other Payables | 11,325.80 | 203,858.85 | (192,533.05) | -94.44% |
| | ----- | ----- | ----- | ----- |
| Total Accounts Payable | 1,312,950.34 | 1,638,159.86 | (325,209.52) | -19.85% |
| Accrued Payroll Liab | 1,324,995.20 | 1,277,203.92 | 47,791.28 | 3.74% |
| | ----- | ----- | ----- | ----- |
| Total Current Liabilities | 2,637,945.54 | 2,915,363.78 | (277,418.24) | -9.52% |
| OTHER LIABILITIES | | | | |
| LT Accrued EB/Lease | 175,226.07 | 313,897.83 | (138,671.76) | -44.18% |
| LT Xenon Notes | 4,000,000.00 | 2,000,000.00 | 2,000,000.00 | 100.00% |
| Pension Deferred Inflows | 1,698,193.00 | 3,184,802.00 | (1,486,609.00) | -46.68% |
| | ----- | ----- | ----- | ----- |
| Total Other Liabilities | 5,873,419.07 | 5,498,699.83 | 374,719.24 | 6.81% |
| TOTAL LIABILITIES | | | | |
| | 8,511,364.61 | 8,414,063.61 | 97,301.00 | 1.16% |
| EQUITY | | | | |
| Restricted: Indemnificati | 7,500,000.00 | 7,500,000.00 | - | 0.00% |
| Restricted: Mine Closure | 1,415,782.17 | 1,398,522.89 | 17,259.28 | 1.23% |
| Restricted: Sanford Gift2 | 407,871.97 | 1,136,796.00 | (728,924.03) | -64.12% |
| Restricted: Pension | 2,476,537.00 | 3,103,052.00 | (626,515.00) | -20.19% |
| Restricted: Experim. Int. | 3,404,373.00 | 3,589,304.84 | (184,931.84) | -5.15% |
| | ----- | ----- | ----- | ----- |
| Total Restricted Funds | 15,204,564.14 | 16,727,675.73 | (1,523,111.59) | -9.11% |
| Investment in Gen FA | 84,450,405.90 | 84,205,360.02 | 245,045.88 | 0.29% |
| Unrestricted Funds | 6,123,542.80 | 4,967,649.13 | 1,155,893.67 | 23.27% |
| | ----- | ----- | ----- | ----- |
| TOTAL EQUITY | 105,778,512.84 | 105,900,684.88 | (122,172.04) | -0.12% |
| TOTAL LIABILITIES & EQUITY | | | | |
| | ===== | ===== | ===== | ===== |
| | \$ 114,289,877.45 | \$ 114,314,748.49 | \$ (24,871.04) | -0.02% |
| | ===== | ===== | ===== | ===== |

COMPARATIVE STATEMENT OF INCOME

FOR THE PERIOD ENDING 08/31/17

| | YEAR TO DATE | PRIOR YEAR TO DATE | \$ CHANGE | % CHANGE |
|---------------------------|-----------------|-----------------------|-------------------|----------|
| REVENUE | | | | |
| DOE Subcontracts | \$ 3,422,730.71 | \$ 4,500,949.74 | \$ (1,078,219.03) | -23.96% |
| NSF/NASA Subcontracts | 3,650.29 | 140.50 | 3,509.79 | 2498.07% |
| State Revenue | 140.88 | 12,000.00 | (11,859.12) | -98.83% |
| Contributions & Donations | 125,000.00 | 125,000.00 | - | 0.00% |
| Checking Interest | 334.72 | 23.61 | 311.11 | 1317.70% |
| Interest Income | 22,004.56 | 17,879.32 | 4,125.24 | 23.07% |
| | ----- | ----- | ----- | ----- |
| TOTAL REVENUE | 3,573,861.16 | 4,655,993.17 | (1,082,132.01) | -23.24% |
| DIRECT COSTS | | | | |
| Direct Labor | 1,085,338.27 | 1,136,435.31 | (51,097.04) | -4.50% |
| ERT Labor | 2,277.70 | 2,659.50 | (381.80) | -14.36% |
| Board of Directors | 1,375.51 | 131.28 | 1,244.23 | 947.77% |
| Capital Outlay >\$5K | 90,970.65 | 550,000.00 | (459,029.35) | -83.46% |
| Contractual Svcs | 395,536.86 | 1,200,989.93 | (805,453.07) | -67.07% |
| Inventory | 30,430.77 | 28,024.19 | 2,406.58 | 8.59% |
| Supplies | 203,208.02 | 274,898.00 | (71,689.98) | -26.08% |
| Travel - Domestic | 6,104.93 | 5,269.83 | 835.10 | 15.85% |
| Travel - Foreign | 10,938.08 | 45,868.52 | (34,930.44) | -76.15% |
| Utilities | 317,975.52 | 250,705.17 | 67,270.35 | 26.83% |
| Other Direct Costs | 52,546.41 | 40,041.00 | 12,505.41 | 31.23% |
| Unallow/Unbill Costs | 62,672.95 | 56,734.35 | 5,938.60 | 10.47% |
| | ----- | ----- | ----- | ----- |
| TOTAL DIRECT COSTS | 2,259,375.67 | 3,591,757.08 | (1,332,381.41) | -37.10% |
| INDIRECT COSTS | | | | |
| Fringe Benefits | 584,103.38 | 546,294.70 | 37,808.68 | 6.92% |
| Overhead | 865,864.50 | 1,145,136.62 | (279,272.12) | -24.39% |
| | ----- | ----- | ----- | ----- |
| TOTAL INDIRECT COSTS | 1,449,967.88 | 1,691,431.32 | (241,463.44) | -14.28% |
| GROSS PROFIT/LOSS () | (135,482.39) | (627,195.23) | 491,712.84 | -78.40% |
| | ----- | ----- | ----- | ----- |
| OTHER INCOME | | | | |
| Water Treatment | 28,566.50 | 43,682.15 | (15,115.65) | -34.60% |
| Miscellaneous Income | 150,108.82 | 23,494.19 | 126,614.63 | 538.92% |
| Other Operating Income | 571.08 | 506.60 | 64.48 | 12.73% |
| | ----- | ----- | ----- | ----- |
| TOTAL OTHER INCOME | 179,246.40 | 67,682.94 | 111,563.46 | 164.83% |
| OTHER EXPENSES | | | | |
| Reclass Incr Net Assets | (329,693.78) | (319,114.80) | (10,578.98) | 3.32% |
| | ----- | ----- | ----- | ----- |
| TOTAL OTHER EXPENSES | (329,693.78) | (319,114.80) | (10,578.98) | 3.32% |
| | ===== | ===== | ===== | ===== |
| NET INCOME/LOSS () | \$ 373,457.79 | \$ (240,397.49) | \$ 613,855.28 | 255.35% |
| | ===== | ===== | ===== | ===== |

South Dakota Science & Technology Authority
Available Resources
8/31/2017

| | |
|---|----------------------------|
| Cash Total Checking | \$ 1,315,832 |
| Cash With State Treasurer | <u>\$ 13,270,634</u> |
| Total Cash | \$ 14,586,466 |
| Less: Restricted Funds | |
| Indemnification/Mine Closure | \$ (8,915,782) |
| Experiments (Xenon, Interest, Infrastructure) | <u>\$ (3,466,295)</u> |
| Total Cash Available for Infrastructure Upgrades and Authority Operations | \$ 2,204,389 |
| Plus: Accounts Receivable Billed | \$ 1,534,065 |
| Accounts Receivable Unbilled | \$ 423,168 |
| Less: Current Liabilities (Accounts Payable & Accrued Payroll) | <u>\$ (2,578,841)</u> |
| (not including accts. pay. for Experiment funding) | |
| Available Cash | <u><u>\$ 1,582,781</u></u> |

SDSTA Operating Budget Summary FY2017

Actual vs Budget

Aug. 2017 & YTD

| | August 2017 | Budget | \$ Over/Under Budget | % of Budget | Actual YTD | YTD Budget | \$ Over/Under Budget | % of Budget | % Remaining |
|--|----------------|----------------|-------------------------|-------------|----------------|----------------|-------------------------|-------------|-------------|
| | | | | | | | | | 100% |
| SDSTA (Authority) Direct Charges | | | | | | | | | |
| Board of Directors | \$18,272.00 | \$19,900.00 | \$1,628.00 | 91.82% | \$38,147.00 | \$39,800.00 | \$1,653.00 | 95.85% | 4.15% |
| Executive Office | \$8,852.00 | \$15,017.00 | \$6,165.00 | 58.95% | \$20,950.00 | \$29,531.00 | \$8,581.00 | 70.94% | 29.06% |
| Science Center E & O | \$2,448.00 | \$0.00 | -\$2,448.00 | 100.0% | \$11,147.00 | \$25,749.00 | \$14,602.00 | 43.29% | 56.71% |
| Science Liaison | -\$877.00 | \$0.00 | \$877.00 | 100.0% | \$270.00 | \$0.00 | -\$270.00 | 100.00% | 0.00% |
| Sanf.L.Visitor C. (Director) | \$3,020.00 | \$4,537.00 | \$1,517.00 | 66.56% | \$6,588.00 | \$8,680.00 | \$2,092.00 | 75.90% | 24.10% |
| Subtotal | \$31,715.00 | \$39,454.00 | \$7,739.00 | 80.39% | \$77,102.00 | \$103,760.00 | \$26,658.00 | 74.31% | 25.69% |
| Federal/State Funding - Direct Charges | | | | | | | | | |
| Fermi P.O.#625691 B/Site Final Des. | \$111,365.00 | \$111,365.00 | \$0.00 | 100.0% | \$111,365.00 | \$111,365.00 | \$0.00 | 100.00% | 0.00% |
| Fermi P.O.#625692 Pre Excav.F.D. | \$164,508.00 | \$164,508.00 | \$0.00 | 100.0% | \$164,508.00 | \$164,508.00 | \$0.00 | 100.00% | 0.00% |
| Fermi P.O.#631450 Engin. Services | \$0.00 | \$0.00 | \$0.00 | 0.0% | \$2,000.00 | \$2,000.00 | \$0.00 | 100.00% | 0.00% |
| Fermi C#629760 Bridge OPS | \$19,191.00 | \$27,137.00 | \$7,946.00 | 70.72% | \$23,558.00 | \$50,318.00 | \$26,760.00 | 46.82% | 53.18% |
| Fermi C#630223 Ross Rehab | \$910,953.00 | \$931,728.00 | \$20,775.00 | 97.77% | \$1,488,237.00 | \$1,819,700.00 | \$331,463.00 | 81.78% | 18.22% |
| Fermi C#630223 Ross Rehab | \$303,725.00 | \$479,408.00 | \$175,683.00 | 63.35% | \$617,819.00 | \$942,718.00 | \$324,899.00 | 65.54% | 34.46% |
| LBNL LUX C#6973786 | \$15,428.00 | \$16,500.00 | \$1,072.00 | 93.50% | \$20,129.00 | \$32,536.00 | \$12,407.00 | 61.87% | 38.13% |
| LBNL LUX/Zepplin C#7255146 | \$25,763.00 | \$33,167.00 | \$7,404.00 | 77.68% | \$34,143.00 | \$63,157.00 | \$29,014.00 | 54.06% | 45.94% |
| LBNL LZ Operations C#7355157 | \$1,621.00 | \$1,374.00 | -\$247.00 | 117.98% | \$2,148.00 | \$2,748.00 | \$600.00 | 78.17% | 21.83% |
| MJD (Majorana) ORNL144149 | \$2,428.00 | \$2,500.00 | \$72.00 | 97.12% | \$4,770.00 | \$5,000.00 | \$230.00 | 95.40% | 4.60% |
| BHSU-UGCampus Gen.Serv. | \$113.00 | \$200.00 | \$87.00 | 56.5% | \$113.00 | \$400.00 | \$287.00 | 28.25% | 71.75% |
| Sanf.Sci.Ed.Center - GOED Funded | \$100,599.00 | \$83,333.00 | -\$17,266.00 | 120.72% | \$100,599.00 | \$116,666.00 | \$16,067.00 | 86.23% | 13.77% |
| SDSM&Tech CASPAR Gen.Serv. | \$1,488.00 | \$2,666.00 | \$1,178.00 | 55.81% | \$2,920.00 | \$5,332.00 | \$2,412.00 | 54.76% | 45.24% |
| * Xilinx, Inc. P.O.#732495 | \$228.00 | \$240.00 | \$12.00 | 95.0% | \$457.00 | \$480.00 | \$23.00 | 95.21% | 4.79% |
| Subtotal | \$1,657,410.00 | \$1,854,126.00 | \$196,716.00 | 89.39% | \$2,572,766.00 | \$3,316,928.00 | \$744,162.00 | 77.56% | 22.44% |
| Indirect Expenses | | | | | | | | | |
| Indirect Charges Personnel | \$113,099.00 | \$117,288.00 | \$4,189.00 | 96.43% | \$226,628.00 | \$231,825.00 | \$5,197.00 | 97.76% | 2.24% |
| Indirect Charges Other | \$398,960.00 | \$287,152.00 | -\$111,808.00 | 138.94% | \$708,895.00 | \$554,406.00 | -\$154,489.00 | 127.87% | -27.87% |
| Subtotal | \$512,059.00 | \$404,440.00 | -\$107,619.00 | 126.61% | \$935,523.00 | \$786,231.00 | -\$149,292.00 | 118.99% | -18.99% |
| Totals | \$2,201,184.00 | \$2,298,020.00 | \$96,836.00 | 95.79% | \$3,585,391.00 | \$4,206,919.00 | \$621,528.00 | 85.23% | 14.77% |
| * Private Corporation (Commercial Group) | | | | | | | | | |

SDSTA CAPEX Budget Summary FY17/18
Actual vs Budget
August 2017 & YTD

| Budget Area | FY2018 Monthly | | | | FY2018 YTD | | | | |
|-------------------|----------------|---------------|----------------------|-------------|---------------|-----------------|----------------------|-------------|-------------|
| | Actual Month | Budget | \$ Over/Under Budget | % of Budget | Actual YTD | Budget | \$ Over/Under Budget | % of Budget | % Remaining |
| | | | | | | | | | 100.00% |
| Operational CAPEX | \$ 720,708.78 | \$ 770,018.00 | \$ 49,309.22 | 93.60% | \$ 774,574.29 | \$ 4,677,160.00 | \$ 3,902,585.71 | 16.56% | 83.44% |
| TOTAL CAPEX | \$ 720,708.78 | \$ 770,018.00 | \$ 49,309.22 | 93.60% | \$ 774,574.29 | \$ 4,677,160.00 | \$ 3,902,585.71 | 16.56% | 83.44% |

SD Science & Technology Authority
Operational CAPEX Budget
Monthly Actual vs Budget

| Project # | Project Description | Aug-17 | Budget | \$ Over/UnderBudget | % of Budget |
|----------------|-------------------------------------|---------------|---------------|---------------------|-------------|
| CAP2014-01 | Sanford Visitor Center Sign/Display | \$ 6,963.93 | \$ 5,268.00 | \$ (1,695.93) | 132.19% |
| CAP2014-05 | CASPAR Experiment Development | \$ - | \$ - | \$ - | 0.00% |
| CAP2016-02 | LZ Surface Facility Upgrades | \$ 59,105.00 | \$ 70,582.00 | \$ 11,477.00 | 83.74% |
| CAP2016-03 | LZ Xenon Gas | \$ 592,099.85 | \$ 594,168.00 | \$ 2,068.15 | 99.65% |
| CAP2017-02 | Ellison Option Asbestos Abatement | \$ 62,540.00 | \$ 100,000.00 | \$ 37,460.00 | 62.54% |
| Monthly Totals | | \$ 720,708.78 | \$ 770,018.00 | \$ 49,309.22 | 93.60% |

SD Science & Technology Authority
Operational CAPEX Budget
YTD FY2018 Actual vs Budget

| Project # | Project Description | August 2017 YTD | FY2018 Budget | \$ Over/UnderBudget | % of Budget | % Remaining |
|------------|-------------------------------------|-----------------|-----------------|---------------------|-------------|-------------|
| | | | | | | 100% |
| CAP2014-01 | Sanford Visitor Center Sign/Display | \$ 6,963.93 | \$ 5,268.00 | \$ (1,695.93) | 132.19% | -32.19% |
| CAP2014-05 | CASPAR Experiment Development | \$ - | \$ 61,630.00 | \$ 61,630.00 | 0.00% | 100.00% |
| CAP2016-02 | LZ Surface Facility Upgrades | \$ 80,954.34 | \$ 251,329.00 | \$ 170,374.66 | 32.21% | 67.79% |
| CAP2016-03 | LZ Xenon Gas | \$ 592,516.02 | \$ 4,100,000.00 | \$ 3,507,483.98 | 14.45% | 85.55% |
| CAP2017-02 | Ellison Option Asbestos Abatement | \$ 94,140.00 | \$ 258,933.00 | \$ 164,793.00 | 36.36% | 63.64% |
| | Totals | \$ 774,574.29 | \$ 4,677,160.00 | \$ 3,902,585.71 | 16.56% | 83.44% |

SD Science and Technology Authority
Consolidated Report 6/30/17
Inventory of Supplies

| <u>Inventory of Supplies</u> | <u>Balance</u> <u>6/30/2014</u> | <u>Additions</u> <u>2015</u> | <u>Deletions</u> <u>2015</u> | <u>Balance 6/30/2015</u> | <u>Additions</u> <u>2016</u> | <u>Deletions 2016</u> | <u>Balance 2016</u> | <u>Additions</u> <u>2017</u> | <u>Deletions</u> <u>2017</u> | <u>Balance 2017</u> |
|--|------------------------------------|---------------------------------|---------------------------------|--------------------------|---------------------------------|-----------------------|---------------------|---------------------------------|---------------------------------|---------------------|
| Foundry Motors/Tuggers/Switches/Skips | \$ 779,000.00 | | | \$ 779,000.00 | | | \$ 779,000.00 | | | \$ 779,000.00 |
| Transformers in Foundry | \$ 112,346.30 | | \$ 18,000.00 | \$ 94,346.30 | | | \$ 94,346.30 | | | \$ 94,346.30 |
| Transformers in Machine Shop | \$ 114,650.00 | | | \$ 114,650.00 | | | \$ 114,650.00 | | | \$ 114,650.00 |
| (from 6Winze) 6800/8000 Pump/Motor Spares | \$ 23,975.00 | | | \$ 23,975.00 | | | \$ 23,975.00 | | | \$ 23,975.00 |
| Ropes | \$ 15,900.00 | | \$ 6,057.14 | \$ 9,842.86 | | | \$ 9,842.86 | | | \$ 9,842.86 |
| Transformers Refurbished (Machine Shop) | \$ 17,400.00 | | | \$ 17,400.00 | | | \$ 17,400.00 | | | \$ 17,400.00 |
| Shaft Level Pumps (from Homestake) | \$ 283,536.36 | | | \$ 283,536.36 | | | \$ 283,536.36 | | | \$ 283,536.36 |
| Benshaw Softstart Starters (3) | \$ 105,772.27 | | | \$ 105,772.27 | | | \$ 105,772.27 | | | \$ 105,772.27 |
| Used Joy Fans (2) | \$ 13,372.00 | | | \$ 13,372.00 | | | \$ 13,372.00 | | | \$ 13,372.00 |
| S&CMetal Enclosed Switchgear (1 set of 3) | \$ - | | | \$ - | | | \$ - | | | \$ - |
| S&CWall Mounted Metal Enclosed Fuse Mounting | \$ - | | | \$ - | | | \$ - | | | \$ - |
| Ross Maint. Transformer S#1M0179357 | \$ - | | | \$ - | | | \$ - | | | \$ - |
| Baldor Motor (5000LSpare) S#S9069457-001 001 | \$ 6,240.00 | | | \$ 6,240.00 | | | \$ 6,240.00 | | | \$ 6,240.00 |
| S&CMetal Enclosed Switchgear (5Units) | \$ - | | | \$ - | | | \$ - | | | \$ - |
| S&C PGM II Multilin Meter for above in Bay 3 | \$ - | | | \$ - | | | \$ - | | | \$ - |
| Flygt Pump (Yates Sump Spare) S#1070147 | \$ 22,870.00 | | | \$ 22,870.00 | | | \$ 22,870.00 | | | \$ 22,870.00 |
| Sandpiper Air Powered Dbl Diaph.PumpS#1905122 | \$ 5,328.06 | | | \$ 5,328.06 | | | \$ 5,328.06 | | | \$ 5,328.06 |
| Cable from Improvements Progress | \$ 354,853.92 | | | \$ 354,853.92 | | | \$ 354,853.92 | | | \$ 354,853.92 |
| Tsurumi Pumps | \$ 70,513.79 | | | \$ 70,513.79 | | | \$ 70,513.79 | | | \$ 70,513.79 |
| Refuge Chambers (2) | \$ 143,369.48 | | | \$ 143,369.48 | | \$ 143,369.48 | \$ - | | | \$ - |
| 10,000KVA Transformer S# 161916B | \$ 10,000.00 | | | \$ 10,000.00 | | | \$ 10,000.00 | | | \$ 10,000.00 |
| Termination Cabinets (4) for Ross Pump System | \$ 15,914.48 | | | \$ 15,914.48 | | | \$ 15,914.48 | | | \$ 15,914.48 |
| #5 Shaft Axial Flow Mine Fan S# 3533 | \$ 47,245.51 | | | \$ 47,245.51 | | | \$ 47,245.51 | | | \$ 47,245.51 |
| DAD Pump S#882157 | \$ 140,191.41 | | | \$ 140,191.41 | | | \$ 140,191.41 | | | \$ 140,191.41 |
| DAD Pump S#882158 | \$ 131,559.36 | | | \$ 131,559.36 | | | \$ 131,559.36 | | | \$ 131,559.36 |
| (2) Siemen Motors Malloy (for2 X 11 DAD Pumps) | \$ 94,011.92 | | | \$ 94,011.92 | | | \$ 94,011.92 | | | \$ 94,011.92 |
| Sky Climber Electric 208V Hoist | \$ 5,880.13 | | | \$ 5,880.13 | | | \$ 5,880.13 | | | \$ 5,880.13 |
| AC Generator 1974 kato S#73392 | \$ 40,036.00 | | | \$ 40,036.00 | | | \$ 40,036.00 | | | \$ 40,036.00 |
| Delta Optical Comparator | \$ 21,783.37 | | | \$ 21,783.37 | | | \$ 21,783.37 | | | \$ 21,783.37 |
| 200 - 10Ft. Lengths 20"Diameter Piping (Waterinflow) | | \$ 65,300.00 | | \$ 65,300.00 | | \$ 65,300.00 | \$ - | | | \$ - |
| IVAC PV500 Vacuum System | | | | \$ - | \$ 47,984.50 | \$ 47,984.50 | \$ - | | | \$ - |
| Totals | \$ 2,575,749.36 | \$ 65,300.00 | \$ 24,057.14 | \$ 2,616,992.22 | \$ 47,984.50 | \$ 256,653.98 | \$ 2,408,322.74 | \$ - | \$ - | \$ 2,408,322.74 |

SD Science & Technology Authority

Year to Date Reconciliation - 7/1/2016 through 6/30/2017

June 30, 2017

Year to Date 7/1/2016 through 6/30/2017

Cost of Fixed Assets

Accumulated Depreciation

000 - SD Science & Technology Authority

| Sys ID Description | Acquire | In Service | Beginning | Additions | Retired | Ending | Beginning | YTD 6/30/2017 | Retired | Ending |
|------------------------------|------------|------------|------------|-----------|---------|------------|------------|---------------|---------|------------|
| 110 - Automobiles | | | | | | | | | | |
| 77 2003 Chevy Astro AWD | 7/15/2008 | 7/15/2008 | 9,079.90 | | | 9,079.90 | 8,172.00 | | | 8,172.00 |
| 78 2003 Ford F250 63-1658 | 1/16/2009 | 1/16/2009 | 11,890.17 | | | 11,890.17 | 10,700.97 | | | 10,700.97 |
| 79 2000 Ford F150 V8 Whit | 2/16/2009 | 2/16/2009 | 7,273.42 | | | 7,273.42 | 6,545.72 | | | 6,545.72 |
| 81 2001 Dodge W/Maintena | 2/25/2009 | 2/25/2009 | 12,329.88 | | | 12,329.88 | 11,096.90 | | | 11,096.90 |
| 347 1999 Chevy Suburban W | 8/11/2009 | 8/11/2009 | 6,618.17 | | | 6,618.17 | 5,886.00 | 71.00 | | 5,957.00 |
| 348 2001 Dodge 2500 W/Mai | 8/12/2009 | 8/12/2009 | 8,906.71 | | | 8,906.71 | 7,920.00 | 96.00 | | 8,016.00 |
| 349 2004 Ford Explorer Sport | 6/4/2010 | 6/4/2010 | 13,306.83 | | | 13,306.83 | 10,409.00 | 1,567.00 | | 11,976.00 |
| 570 2009 Chevy G3500 Van | 9/8/2014 | 9/8/2014 | 16,900.00 | | | 16,900.00 | 3,984.00 | 2,173.00 | | 6,157.00 |
| 653 2011 Chevy3500Stakebe | 11/21/2016 | 11/21/2016 | | 22,657.45 | | 22,657.45 | | 1,699.00 | | 1,699.00 |
| | | | 86,305.08 | 22,657.45 | 0.00 | 108,962.53 | 64,714.59 | 5,606.00 | 0.00 | 70,320.59 |
| 120 - Building | | | | | | | | | | |
| 10 Ross Hoist Room | 4/14/2006 | 4/14/2006 | 436,796.20 | | | 436,796.20 | 97,535.72 | 8,736.00 | | 106,271.72 |
| 14 Ross Head Frame & Crus | 4/14/2006 | 4/14/2006 | 421,551.65 | | | 421,551.65 | 94,130.90 | 8,431.00 | | 102,561.90 |
| 19 Yates Head Frame & Cru | 4/14/2006 | 4/14/2006 | 496,154.18 | | | 496,154.18 | 110,789.06 | 9,923.00 | | 120,712.06 |
| 24 Mine Office - Admin Bld | 4/14/2006 | 4/14/2006 | 461,316.99 | | | 461,316.99 | 103,008.23 | 9,226.00 | | 112,234.23 |
| 25 Yates Hoist/MG Set Rooi | 4/14/2006 | 4/14/2006 | 797,826.88 | | | 797,826.88 | 178,155.43 | 15,957.00 | | 194,112.43 |
| 26 Ross Substation Building | 4/14/2006 | 4/14/2006 | 13,615.43 | | | 13,615.43 | 3,038.12 | 272.00 | | 3,310.12 |
| 27 Ross Boiler | 4/14/2006 | 4/14/2006 | 23,236.99 | | | 23,236.99 | 5,190.57 | 465.00 | | 5,655.57 |
| 28 Ross Core Shed | 4/14/2006 | 4/14/2006 | 6,785.02 | | | 6,785.02 | 1,517.17 | 136.00 | | 1,653.17 |
| 29 Ross Dry | 4/14/2006 | 4/14/2006 | 142,961.96 | | | 142,961.96 | 31,921.27 | 2,859.00 | | 34,780.27 |
| 30 Ross Pipe Shop | 4/14/2006 | 4/14/2006 | 50,830.92 | | | 50,830.92 | 11,353.05 | 1,017.00 | | 12,370.05 |
| 31 LHD Warehouse | 4/14/2006 | 4/14/2006 | 51,988.23 | | | 51,988.23 | 11,610.45 | 1,040.00 | | 12,650.45 |
| 32 Ross Tramway Shed | 4/14/2006 | 4/14/2006 | 68,757.90 | | | 68,757.90 | 15,352.31 | 1,375.00 | | 16,727.31 |
| 33 Ross Air Tanks | 4/14/2006 | 4/14/2006 | 7,760.79 | | | 7,760.79 | 1,731.45 | 155.00 | | 1,886.45 |
| 34 Ross Ramp | 4/14/2006 | 4/14/2006 | 7,091.37 | | | 7,091.37 | 1,584.69 | 142.00 | | 1,726.69 |
| 35 Oro Hondo Fan Building | 4/14/2006 | 4/14/2006 | 6,807.71 | | | 6,807.71 | 1,519.06 | 136.00 | | 1,655.06 |
| 36 Oro Hondo Substation Bt | 4/14/2006 | 4/14/2006 | 6,807.71 | | | 6,807.71 | 1,519.06 | 136.00 | | 1,655.06 |
| 37 Shaft Heater Room @ #5 | 4/14/2006 | 4/14/2006 | 6,240.40 | | | 6,240.40 | 1,394.81 | 125.00 | | 1,519.81 |
| 38 Tramway Roundhouse | 4/14/2006 | 4/14/2006 | 7,624.64 | | | 7,624.64 | 1,699.11 | 152.00 | | 1,851.11 |
| 39 Main Warehouse | 4/14/2006 | 4/14/2006 | 142,224.46 | | | 142,224.46 | 31,754.84 | 2,844.00 | | 34,598.84 |
| 41 Bottle Gas Storage | 4/14/2006 | 4/14/2006 | 20,967.75 | | | 20,967.75 | 4,679.55 | 419.00 | | 5,098.55 |

000 - SD Science & Technology Authority

| Sys ID | Description | Acquire | In Service | Beginning | Additions | Retired | Ending | Beginning | YTD 6/30/2017 | Retired | Ending |
|----------------|--------------------------|------------|------------|------------|-----------|---------|------------|------------|---------------|---------|------------|
| 120 - Building | | | | | | | | | | | |
| 42 | Tramway | 4/14/2006 | 4/14/2006 | 177,908.22 | | | 177,908.22 | 39,725.19 | 3,558.00 | | 43,283.19 |
| 43 | Iron House | 4/14/2006 | 4/14/2006 | 60,044.02 | | | 60,044.02 | 13,408.48 | 1,201.00 | | 14,609.48 |
| 44 | Machine Shop | 4/14/2006 | 4/14/2006 | 257,142.32 | | | 257,142.32 | 57,420.13 | 5,143.00 | | 62,563.13 |
| 45 | Foundry | 4/14/2006 | 4/14/2006 | 162,810.11 | | | 162,810.11 | 36,353.56 | 3,256.00 | | 39,609.56 |
| 46 | Battery Repair Building | 4/14/2006 | 4/14/2006 | 26,141.62 | | | 26,141.62 | 5,838.51 | 523.00 | | 6,361.51 |
| 47 | Bit Shop | 4/14/2006 | 4/14/2006 | 5,446.17 | | | 5,446.17 | 1,216.65 | 109.00 | | 1,325.65 |
| 48 | Paint Shop | 4/14/2006 | 4/14/2006 | 7,715.41 | | | 7,715.41 | 1,720.67 | 154.00 | | 1,874.67 |
| 50 | East Substation Building | 4/14/2006 | 4/14/2006 | 6,807.71 | | | 6,807.71 | 1,519.06 | 136.00 | | 1,655.06 |
| 51 | Wash Rack | 4/14/2006 | 4/14/2006 | 7,148.10 | | | 7,148.10 | 1,596.41 | 143.00 | | 1,739.41 |
| 52 | Steady Head Tank | 4/14/2006 | 4/14/2006 | 8,271.37 | | | 8,271.37 | 1,843.98 | 165.00 | | 2,008.98 |
| 53 | Yates Safety & Dry | 4/14/2006 | 4/14/2006 | 215,259.87 | | | 215,259.87 | 48,065.46 | 4,305.00 | | 52,370.46 |
| 54 | Yates Power Substation E | 4/14/2006 | 4/14/2006 | 11,436.96 | | | 11,436.96 | 2,555.66 | 229.00 | | 2,784.66 |
| 55 | Yates Bosses Office | 4/14/2006 | 4/14/2006 | 6,490.02 | | | 6,490.02 | 1,450.60 | 130.00 | | 1,580.60 |
| 57 | Yates Lamp Room | 4/14/2006 | 4/14/2006 | 10,620.03 | | | 10,620.03 | 2,368.61 | 212.00 | | 2,580.61 |
| 58 | Yates Dust Collector | 4/14/2006 | 4/14/2006 | 3,630.78 | | | 3,630.78 | 813.43 | 73.00 | | 886.43 |
| 59 | Yates Sawmill | 4/14/2006 | 4/14/2006 | 33,947.79 | | | 33,947.79 | 7,580.74 | 679.00 | | 8,259.74 |
| 60 | Used Oil Storage Tank | 4/14/2006 | 4/14/2006 | 2,042.31 | | | 2,042.31 | 457.12 | 41.00 | | 498.12 |
| 61 | Yates Cooling Tower | 4/14/2006 | 4/14/2006 | 5,446.17 | | | 5,446.17 | 1,216.65 | 109.00 | | 1,325.65 |
| 62 | Yates Compressor | 4/14/2006 | 4/14/2006 | 173,180.53 | | | 173,180.53 | 38,673.38 | 3,464.00 | | 42,137.38 |
| 63 | Motor Repair Shop | 4/14/2006 | 4/14/2006 | 17,473.13 | | | 17,473.13 | 3,898.46 | 349.00 | | 4,247.46 |
| 64 | WW Influent Building | 4/14/2006 | 4/14/2006 | 645,487.44 | | | 645,487.44 | 144,137.04 | 12,910.00 | | 157,047.04 |
| 65 | WW Lab/Fishhouse | 4/14/2006 | 4/14/2006 | 134,476.55 | | | 134,476.55 | 30,031.47 | 2,690.00 | | 32,721.47 |
| 66 | WW Mechanical Building | 4/14/2006 | 4/14/2006 | 727,249.18 | | | 727,249.18 | 162,392.53 | 14,545.00 | | 176,937.53 |
| 67 | WW Warehouse | 4/14/2006 | 4/14/2006 | 174,012.66 | | | 174,012.66 | 38,854.70 | 3,480.00 | | 42,334.70 |
| 68 | WW Sandfilter Building | 4/14/2006 | 4/14/2006 | 917,399.02 | | | 917,399.02 | 204,852.40 | 18,348.00 | | 223,200.40 |
| 338 | Building Closing Costs | 1/31/2007 | 1/31/2007 | 63,820.42 | | | 63,820.42 | 12,526.67 | 1,276.00 | | 13,802.67 |
| 73 | WW Protec Building 56X | 12/1/2008 | 12/1/2008 | 64,632.77 | | | 64,632.77 | 19,603.10 | 2,585.00 | | 22,188.10 |
| 74 | WW Valve Building 9X1 | 12/16/2008 | 12/16/2008 | 15,178.78 | | | 15,178.78 | 2,279.79 | 304.00 | | 2,583.79 |
| 75 | WW Pole Frame Building | 2/5/2009 | 2/5/2009 | 104,518.82 | | | 104,518.82 | 15,500.99 | 2,090.00 | | 17,590.99 |
| 666 | Ellison Hoist Bldg | 6/12/2017 | 6/12/2017 | | 24,252.00 | | 24,252.00 | | 40.00 | | 40.00 |
| 667 | Ellison Boiler | 6/12/2017 | 6/12/2017 | | 40,608.00 | | 40,608.00 | | 68.00 | | 68.00 |
| 668 | Ellison Dry-Paint Shop | 6/12/2017 | 6/12/2017 | | 49,632.00 | | 49,632.00 | | 83.00 | | 83.00 |
| 669 | Old Compressor Bldg. | 6/12/2017 | 6/12/2017 | | 39,198.00 | | 39,198.00 | | 65.00 | | 65.00 |
| 670 | Drill Bit Shop | 6/12/2017 | 6/12/2017 | | 87,138.00 | | 87,138.00 | | 145.00 | | 145.00 |
| 671 | Rope House | 6/12/2017 | 6/12/2017 | | 41,172.00 | | 41,172.00 | | 69.00 | | 69.00 |

Cost of Fixed AssetsAccumulated Depreciation

000 - SD Science & Technology Authority

| Sys ID | Description | Acquire | In Service | Beginning | Additions | Retired | Ending | Beginning | YTD 6/30/2017 | Retired | Ending |
|--------|---------------------------|-----------|------------|--------------|------------|-------------|--------------|--------------|---------------|-------------|--------------|
| 120 | - Building | | | 7,223,085.46 | 282,000.00 | 0.00 | 7,505,085.46 | 1,607,386.29 | 146,223.00 | 0.00 | 1,753,609.29 |
| 130 | - Computer Hardware | | | | | | | | | | |
| 83 | 2950 Windows Server 20 | 5/30/2009 | 5/30/2009 | 5,033.00 | | | 5,033.00 | 5,033.00 | | | 5,033.00 |
| 84 | 2950 Windows Server 20 | 5/30/2009 | 5/30/2009 | 7,294.02 | | | 7,294.02 | 7,294.00 | | | 7,294.00 |
| 85 | 2950 Windows Server 20 | 5/30/2009 | 5/30/2009 | 5,033.00 | | | 5,033.00 | 5,033.00 | | | 5,033.00 |
| 88 | Rack Server RACK | 5/30/2009 | 5/30/2009 | 5,700.94 | | | 5,700.94 | 5,700.02 | | | 5,700.02 |
| 89 | Rack Server RACK | 5/30/2009 | 5/30/2009 | 5,700.94 | | | 5,700.94 | 5,700.02 | | | 5,700.02 |
| 91 | DL2000 Windows Server | 5/30/2009 | 5/30/2009 | 19,609.68 | | (19,609.68) | 0.00 | 19,609.00 | | (19,609.00) | 0.00 |
| 92 | DL2000 Windows Server | 5/30/2009 | 5/30/2009 | 14,861.57 | | (14,861.57) | 0.00 | 14,860.69 | | (14,860.69) | 0.00 |
| 95 | Router Kit 7609-2SUP72 | 5/30/2009 | 5/30/2009 | 56,935.00 | | (56,935.00) | 0.00 | 56,934.92 | 0.08 | (56,935.00) | 0.00 |
| 96 | Catalyst 48-Port 10/100/1 | 5/30/2009 | 5/30/2009 | 8,910.00 | | | 8,910.00 | 8,910.00 | | | 8,910.00 |
| 97 | Catalyst 48-Port 10/100/1 | 5/30/2009 | 5/30/2009 | 8,938.50 | | | 8,938.50 | 8,937.98 | | | 8,937.98 |
| 98 | SSG 550M System 1GB l | 5/30/2009 | 5/30/2009 | 7,350.00 | | (7,350.00) | 0.00 | 7,350.00 | | (7,350.00) | 0.00 |
| 99 | SA2500 Secure Access 2. | 5/30/2009 | 5/30/2009 | 7,906.50 | | | 7,906.50 | 7,905.78 | | | 7,905.78 |
| 100 | 41213 Management Swit | 5/30/2009 | 5/30/2009 | 6,196.90 | | | 6,196.90 | 6,196.28 | | | 6,196.28 |
| 101 | 41213 Management Swit | 5/30/2009 | 5/30/2009 | 6,196.90 | | | 6,196.90 | 6,196.28 | | | 6,196.28 |
| 102 | 41213 Management Swit | 5/30/2009 | 5/30/2009 | 6,196.90 | | | 6,196.90 | 6,196.28 | | | 6,196.28 |
| 103 | 41213 Management Swit | 5/30/2009 | 5/30/2009 | 6,196.90 | | | 6,196.90 | 6,196.28 | | | 6,196.28 |
| 104 | 41213 Management Swit | 5/30/2009 | 5/30/2009 | 6,196.90 | | | 6,196.90 | 6,196.28 | | | 6,196.28 |
| 105 | 41213 Management Swit | 5/30/2009 | 5/30/2009 | 6,196.90 | | | 6,196.90 | 6,196.28 | | | 6,196.28 |
| 106 | 41517 48 Port TX 12800 | 5/30/2009 | 5/30/2009 | 6,510.00 | | | 6,510.00 | 6,510.00 | | | 6,510.00 |
| 107 | 41517 48 Port TX 12800 | 5/30/2009 | 5/30/2009 | 6,510.00 | | | 6,510.00 | 6,510.00 | | | 6,510.00 |
| 108 | 41517 48 Port TX 12800 | 5/30/2009 | 5/30/2009 | 6,510.00 | | | 6,510.00 | 6,510.00 | | | 6,510.00 |
| 109 | 41544 48 Port GBIC 128 | 5/30/2009 | 5/30/2009 | 9,916.90 | | | 9,916.90 | 9,916.28 | | | 9,916.28 |
| 110 | 41544 48 Port GBIC 128 | 5/30/2009 | 5/30/2009 | 9,916.90 | | | 9,916.90 | 9,916.28 | | | 9,916.28 |
| 111 | 41544 48 Port GBIC 128 | 5/30/2009 | 5/30/2009 | 9,916.90 | | | 9,916.90 | 9,916.28 | | | 9,916.28 |
| 112 | 41517 BD 12800 Managt | 5/30/2009 | 5/30/2009 | 6,510.00 | | | 6,510.00 | 6,510.00 | | | 6,510.00 |
| 113 | 41517 BD 12800 Managt | 5/30/2009 | 5/30/2009 | 6,510.00 | | | 6,510.00 | 6,510.00 | | | 6,510.00 |
| 114 | SSG 550M System 1GB l | 5/30/2009 | 5/30/2009 | 7,350.00 | | (7,350.00) | 0.00 | 7,350.00 | | (7,350.00) | 0.00 |
| 115 | SA2500 Secure Access 2. | 5/30/2009 | 5/30/2009 | 7,906.50 | | | 7,906.50 | 7,905.78 | | | 7,905.78 |
| 116 | 41544 BD 12800 Managt | 5/30/2009 | 5/30/2009 | 9,916.90 | | | 9,916.90 | 9,916.28 | | | 9,916.28 |
| 94 | Cosign Appliance Windo | 6/30/2009 | 6/30/2009 | 8,600.00 | | | 8,600.00 | 8,600.00 | | | 8,600.00 |
| 351 | Server Rack | 6/30/2010 | 6/30/2010 | 7,986.99 | | | 7,986.99 | 7,986.00 | | | 7,986.00 |
| 352 | PLC Mine Monitoring Sy | 6/30/2010 | 6/30/2010 | 7,910.20 | | | 7,910.20 | 7,910.00 | | | 7,910.00 |
| 429 | PLC Mine Monitoring Sy | 7/15/2010 | 7/15/2010 | 2,343.71 | | | 2,343.71 | 2,343.00 | | | 2,343.00 |

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| Sys ID Description | Acquire | In Service | Beginning | Additions | Retired | Ending | Beginning | YTD 6/30/2017 | Retired | Ending |
|----------------------------------|------------|------------|------------|-----------|--------------|------------|------------|---------------|--------------|------------|
| 130 - Computer Hardware | | | | | | | | | | |
| 433 PLC Mine Monitoring Sy | 4/1/2011 | 4/1/2011 | 19,866.94 | | | 19,866.94 | 19,866.00 | | | 19,866.00 |
| 549 Apple MP 3.5 1TB 32GB | 3/31/2014 | 3/31/2014 | 5,170.42 | | | 5,170.42 | 2,326.00 | 1,034.00 | | 3,360.00 |
| 583 Power Edge Server System | 6/30/2015 | 6/30/2015 | 6,898.07 | | | 6,898.07 | 6,460.10 | 438.00 | | 6,898.10 |
| 586 Dell Equal Logic PS1000 | 6/30/2015 | 6/30/2015 | 31,121.72 | | | 31,121.72 | 26,490.53 | 4,630.00 | | 31,120.53 |
| 587 PowerVault MD1000 Storage | 6/30/2015 | 6/30/2015 | 8,131.40 | | | 8,131.40 | 5,808.13 | 2,323.00 | | 8,131.13 |
| 588 PowerVault MD1000 Storage | 6/30/2015 | 6/30/2015 | 8,131.40 | | | 8,131.40 | 5,808.13 | 2,323.00 | | 8,131.13 |
| 600 Virtual HP Server | 6/29/2015 | 6/30/2015 | 17,362.50 | | | 17,362.50 | 3,472.00 | 3,472.00 | | 6,944.00 |
| 601 Virtual HP Server | 6/29/2015 | 6/30/2015 | 17,362.50 | | | 17,362.50 | 3,472.00 | 3,472.00 | | 6,944.00 |
| 621 Server-HP DL360Gen9 8 | 8/21/2015 | 8/21/2015 | 11,014.87 | | | 11,014.87 | 1,836.00 | 2,203.00 | | 4,039.00 |
| 622 Server HP DL360 Gen9 8 | 8/21/2015 | 8/21/2015 | 11,014.88 | | | 11,014.88 | 1,836.00 | 2,203.00 | | 4,039.00 |
| 623 Switch - HP 3800-24G Switch | 8/21/2015 | 8/21/2015 | 7,522.00 | | | 7,522.00 | 1,254.00 | 1,504.00 | | 2,758.00 |
| 624 Switch 5800-24G Switch | 8/21/2015 | 8/21/2015 | 7,522.00 | | | 7,522.00 | 1,254.00 | 1,504.00 | | 2,758.00 |
| 645 Toshiba Server (Application) | 6/14/2016 | 6/14/2016 | 5,528.00 | | | 5,528.00 | 92.00 | 1,106.00 | | 1,198.00 |
| 659 Router MX104 Edge Router | 1/16/2017 | 1/16/2017 | | 35,725.93 | | 35,725.93 | | 2,977.00 | | 2,977.00 |
| 660 Backup Server HP DL380 | 3/2/2017 | 3/2/2017 | | 9,536.63 | | 9,536.63 | | 636.00 | | 636.00 |
| 661 Backup Server HP DL380 | 3/2/2017 | 3/2/2017 | | 9,536.63 | | 9,536.63 | | 636.00 | | 636.00 |
| 662 Firewall Fortigate800D U | 4/2/2017 | 4/2/2017 | | 12,337.00 | | 12,337.00 | | 617.00 | | 617.00 |
| 663 Firewall Fortigate800D U | 4/2/2017 | 4/2/2017 | | 12,337.00 | | 12,337.00 | | 617.00 | | 617.00 |
| | | | 461,416.25 | 79,473.19 | (106,106.25) | 434,783.19 | 384,730.88 | 31,695.08 | (106,104.69) | 310,321.27 |
| 140 - Equipment & Fixtures | | | | | | | | | | |
| 119 Telephone Equipment | 6/1/2006 | 6/1/2006 | 3,927.47 | | | 3,927.47 | 3,926.69 | | | 3,926.69 |
| 120 Kubota RTV900T6H Util | 10/31/2006 | 10/31/2006 | 16,535.00 | | | 16,535.00 | 15,987.33 | 548.00 | | 16,535.33 |
| 121 John Deere 304J Wheel L | 11/30/2006 | 11/30/2006 | 89,701.26 | | | 89,701.26 | 85,962.83 | 3,738.00 | | 89,700.83 |
| 122 Solomon Corp 1000kva,1 | 3/16/2007 | 3/16/2007 | 8,017.33 | | | 8,017.33 | 2,850.43 | 200.00 | | 3,050.43 |
| 179 Softstart Controllers 700I | 6/30/2007 | 6/30/2007 | 167,350.00 | | | 167,350.00 | 89,255.67 | 11,157.00 | | 100,412.67 |
| 123 Oxygen Booster Pumps (| 7/1/2007 | 7/1/2007 | 21,400.00 | | | 21,400.00 | 19,260.00 | 2,140.00 | | 21,400.00 |
| 124 Command Modules Com | 7/1/2007 | 7/1/2007 | 18,589.00 | | | 18,589.00 | 18,589.00 | | | 18,589.00 |
| 125 Self-Contained Breathing | 7/1/2007 | 7/1/2007 | 97,720.00 | | | 97,720.00 | 97,720.00 | | | 97,720.00 |
| 207 Motor GE 700HP HL840 | 9/24/2007 | 9/24/2007 | 28,370.67 | | | 28,370.67 | 11,344.53 | 1,418.00 | | 12,762.53 |
| 154 700HP Kirk Timberyard : | 11/29/2007 | 11/29/2007 | 25,860.76 | | | 25,860.76 | 6,896.03 | 862.00 | | 7,758.03 |
| 168 Transformer 225 KVA TI | 12/17/2007 | 12/17/2007 | 12,355.22 | | | 12,355.22 | 2,471.88 | 309.00 | | 2,780.88 |
| 126 Safety Apparatus (7 pack | 12/31/2007 | 12/31/2007 | 48,860.00 | | | 48,860.00 | 41,531.00 | 4,886.00 | | 46,417.00 |
| 196 Ross Headframe Air Unit | 12/31/2007 | 12/31/2007 | 10,817.00 | | (10,817.00) | 0.00 | 8,655.70 | 992.00 | (9,647.70) | 0.00 |
| 331 Tsurumi Pumps LH675-6 | 2/4/2008 | 2/4/2008 | 22,279.36 | | | 22,279.36 | 7,128.18 | 891.00 | | 8,019.18 |
| 213 Transformer GE 500KVA | 2/27/2008 | 2/27/2008 | 7,350.00 | | | 7,350.00 | 1,471.75 | 184.00 | | 1,655.75 |

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| Sys ID | Description | Acquire | In Service | Beginning | Additions | Retired | Ending | Beginning | YTD 6/30/2017 | Retired | Ending |
|----------------------------|--------------------------|-----------|------------|------------|-----------|---------|------------|-----------|---------------|---------|-----------|
| 140 - Equipment & Fixtures | | | | | | | | | | | |
| 220 | Transformer GE 500KVA | 2/27/2008 | 2/27/2008 | 7,350.00 | | | 7,350.00 | 1,471.75 | 184.00 | | 1,655.75 |
| 221 | Transformer Howard Ind | 2/27/2008 | 2/27/2008 | 7,350.00 | | | 7,350.00 | 1,471.75 | 184.00 | | 1,655.75 |
| 223 | Transformer Howard Ind | 2/27/2008 | 2/27/2008 | 7,350.00 | | | 7,350.00 | 1,471.75 | 184.00 | | 1,655.75 |
| 224 | Transformer Solomon 100 | 2/27/2008 | 2/27/2008 | 5,900.00 | | | 5,900.00 | 1,183.50 | 148.00 | | 1,331.50 |
| 225 | Transformer Solomon 100 | 2/27/2008 | 2/27/2008 | 5,900.00 | | | 5,900.00 | 1,183.50 | 148.00 | | 1,331.50 |
| 226 | Transformer Solomon 100 | 2/27/2008 | 2/27/2008 | 5,900.00 | | | 5,900.00 | 1,183.50 | 148.00 | | 1,331.50 |
| 227 | Transformer Howard Ind | 2/27/2008 | 2/27/2008 | 7,350.00 | | | 7,350.00 | 1,471.75 | 184.00 | | 1,655.75 |
| 228 | Transformer GE 75KVA | 2/27/2008 | 2/27/2008 | 5,800.00 | | | 5,800.00 | 1,160.00 | 145.00 | | 1,305.00 |
| 229 | Transformer GE 75KVA | 2/27/2008 | 2/27/2008 | 5,800.00 | | | 5,800.00 | 1,160.00 | 145.00 | | 1,305.00 |
| 230 | Transformer GE 75KVA | 2/27/2008 | 2/27/2008 | 5,800.00 | | | 5,800.00 | 1,160.00 | 145.00 | | 1,305.00 |
| 218 | Transformer GE 500KVA | 2/28/2008 | 2/28/2008 | 7,350.00 | | | 7,350.00 | 1,471.75 | 184.00 | | 1,655.75 |
| 129 | 3 Ton Locomotive Battery | 2/29/2008 | 2/29/2008 | 7,884.00 | | | 7,884.00 | 7,884.00 | | | 7,884.00 |
| 178 | Skid Tanks 4X4X12 (4) | 3/6/2008 | 3/6/2008 | 24,872.90 | | | 24,872.90 | 7,959.92 | 995.00 | | 8,954.92 |
| 201 | Pump Ingersoll Rand 037 | 3/12/2008 | 3/12/2008 | 91,206.72 | | | 91,206.72 | 29,184.27 | 3,648.00 | | 32,832.27 |
| 211 | Transformer GE 500KVA | 3/25/2008 | 3/25/2008 | 7,350.00 | | | 7,350.00 | 1,471.75 | 184.00 | | 1,655.75 |
| 212 | Transformer GE 500KVA | 3/25/2008 | 3/25/2008 | 7,350.00 | | | 7,350.00 | 1,471.75 | 184.00 | | 1,655.75 |
| 214 | Transformer Westinghouse | 3/25/2008 | 3/25/2008 | 7,350.00 | | | 7,350.00 | 1,471.75 | 184.00 | | 1,655.75 |
| 216 | Transformer Westinghouse | 3/25/2008 | 3/25/2008 | 7,350.00 | | | 7,350.00 | 1,471.75 | 184.00 | | 1,655.75 |
| 217 | Transformer Westinghouse | 3/25/2008 | 3/25/2008 | 7,350.00 | | | 7,350.00 | 1,471.75 | 184.00 | | 1,655.75 |
| 219 | Transformer GE 500KVA | 3/25/2008 | 3/25/2008 | 7,350.00 | | | 7,350.00 | 1,471.75 | 184.00 | | 1,655.75 |
| 144 | Cranes | 4/30/2008 | 4/30/2008 | 100,509.34 | | | 100,509.34 | 10,720.12 | 1,340.00 | | 12,060.12 |
| 204 | Motor GE 700HP FM84C | 5/6/2008 | 5/6/2008 | 32,772.50 | | | 32,772.50 | 13,111.63 | 1,639.00 | | 14,750.63 |
| 190 | Troll 9500 Water Sample | 5/14/2008 | 5/14/2008 | 8,325.92 | | | 8,325.92 | 6,656.59 | 832.00 | | 7,488.59 |
| 180 | Axial Flow Mine Fan 150 | 5/30/2008 | 5/30/2008 | 53,484.75 | | | 53,484.75 | 21,392.24 | 2,674.00 | | 24,066.24 |
| 127 | Draeger Tester 6100 | 5/31/2008 | 5/31/2008 | 6,010.95 | | | 6,010.95 | 6,010.95 | | | 6,010.95 |
| 142 | Base Interface 4 channel | 6/18/2008 | 6/18/2008 | 6,011.00 | | | 6,011.00 | 4,808.10 | 601.00 | | 5,409.10 |
| 132 | Telephone System Additi | 6/30/2008 | 6/30/2008 | 11,371.31 | | | 11,371.31 | 9,096.00 | 1,137.00 | | 10,233.00 |
| 166 | Ross Hoist (2) | 6/30/2008 | 6/30/2008 | 121,842.89 | | | 121,842.89 | 12,999.57 | 1,625.00 | | 14,624.57 |
| 169 | Transformer GE 5MVA | 7/1/2008 | 7/1/2008 | 5,000.00 | | | 5,000.00 | 1,000.00 | 125.00 | | 1,125.00 |
| 171 | Transformer GE 1500KV | 7/1/2008 | 7/1/2008 | 5,000.00 | | | 5,000.00 | 1,000.00 | 125.00 | | 1,125.00 |
| 172 | Transformer GE 10,000K | 7/1/2008 | 7/1/2008 | 10,000.00 | | | 10,000.00 | 2,000.00 | 250.00 | | 2,250.00 |
| 173 | Transformer GE 20,000K | 7/1/2008 | 7/1/2008 | 15,000.00 | | | 15,000.00 | 3,000.00 | 375.00 | | 3,375.00 |
| 174 | Transformer GE 10,000 K | 7/1/2008 | 7/1/2008 | 10,000.00 | | | 10,000.00 | 2,000.00 | 250.00 | | 2,250.00 |
| 175 | Transformer GE 10,000K | 7/1/2008 | 7/1/2008 | 10,000.00 | | | 10,000.00 | 2,000.00 | 250.00 | | 2,250.00 |
| 247 | MG Sets (2) Yates | 7/1/2008 | 7/1/2008 | 60,000.00 | | | 60,000.00 | 6,400.00 | 800.00 | | 7,200.00 |

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| Sys ID Description | Acquire | In Service | Beginning | Additions | Retired | Ending | Beginning | YTD 6/30/2017 | Retired | Ending |
|-------------------------------|------------|------------|------------|-----------|---------|------------|-----------|---------------|---------|------------|
| 140 - Equipment & Fixtures | | | | | | | | | | |
| 235 FLYGT Centrifugal Pump | 7/23/2008 | 7/23/2008 | 11,997.23 | | | 11,997.23 | 3,799.90 | 480.00 | | 4,279.90 |
| 197 Ross Hoist Bldg (3) Boil | 7/31/2008 | 7/31/2008 | 125,245.77 | | | 125,245.77 | 99,148.86 | 12,524.00 | | 111,672.86 |
| 167 Security Monitoring Gate | 8/1/2008 | 8/1/2008 | 23,126.00 | | | 23,126.00 | 18,310.88 | 2,313.00 | | 20,623.88 |
| 202 Pump Ingersoll Rand 213 | 8/1/2008 | 8/1/2008 | 22,508.00 | | | 22,508.00 | 7,125.29 | 900.00 | | 8,025.29 |
| 203 Pump Ingersoll Rand 675 | 8/1/2008 | 8/1/2008 | 130,646.97 | | | 130,646.97 | 41,372.39 | 5,226.00 | | 46,598.39 |
| 234 Diesel Generator - WWT | 8/1/2008 | 8/1/2008 | 5,000.00 | | | 5,000.00 | 3,958.33 | 500.00 | | 4,458.33 |
| 236 FLYGT 10HP Pumps (2) | 8/1/2008 | 8/1/2008 | 12,000.00 | | | 12,000.00 | 3,800.00 | 480.00 | | 4,280.00 |
| 237 FLYGT 15HP Pumps (2) | 8/1/2008 | 8/1/2008 | 18,000.00 | | | 18,000.00 | 5,700.00 | 720.00 | | 6,420.00 |
| 241 Rotating Biological Cont | 8/1/2008 | 8/1/2008 | 206,014.95 | | | 206,014.95 | 32,616.94 | 4,120.00 | | 36,736.94 |
| 242 Sand Filter Galiger Pump | 8/1/2008 | 8/1/2008 | 15,000.00 | | | 15,000.00 | 4,750.00 | 600.00 | | 5,350.00 |
| 243 Sand Filters (3) WWTP | 8/1/2008 | 8/1/2008 | 45,000.00 | | | 45,000.00 | 7,125.00 | 900.00 | | 8,025.00 |
| 245 Soda Ash System | 8/1/2008 | 8/1/2008 | 9,573.70 | | | 9,573.70 | 1,512.52 | 191.00 | | 1,703.52 |
| 188 Electric Winch (WE271) | 8/15/2008 | 8/15/2008 | 47,187.00 | | | 47,187.00 | 7,473.10 | 944.00 | | 8,417.10 |
| 231 Fume Hood for Lab Cabi | 8/22/2008 | 8/22/2008 | 5,989.95 | | | 5,989.95 | 4,692.16 | 599.00 | | 5,291.16 |
| 205 Motor GE 700HP FM84C | 8/25/2008 | 8/25/2008 | 38,004.39 | | | 38,004.39 | 14,883.52 | 1,900.00 | | 16,783.52 |
| 156 MG Sets (2) Ross | 8/31/2008 | 8/31/2008 | 60,000.00 | | | 60,000.00 | 6,266.67 | 800.00 | | 7,066.67 |
| 194 Yates Hoists (2) | 8/31/2008 | 8/31/2008 | 89,168.26 | | | 89,168.26 | 9,313.76 | 1,189.00 | | 10,502.76 |
| 209 Motor GE 700HP HL840 | 9/22/2008 | 9/22/2008 | 31,362.30 | | | 31,362.30 | 12,152.09 | 1,568.00 | | 13,720.09 |
| 150 Kubota GL7000 Generatc | 10/21/2008 | 10/21/2008 | 5,300.00 | | | 5,300.00 | 4,063.33 | 530.00 | | 4,593.33 |
| 232 Cornell Pumps W/Baldor | 10/29/2008 | 10/29/2008 | 27,102.98 | | | 27,102.98 | 8,310.75 | 1,084.00 | | 9,394.75 |
| 157 Miller Trailblazer 3020 V | 11/5/2008 | 11/5/2008 | 7,430.00 | | | 7,430.00 | 5,696.33 | 743.00 | | 6,439.33 |
| 137 40 Unit Cap Lamp Charg | 11/20/2008 | 11/20/2008 | 5,253.00 | | | 5,253.00 | 3,981.43 | 525.00 | | 4,506.43 |
| 206 Motor GE 700HP FM839 | 11/24/2008 | 11/24/2008 | 35,025.30 | | | 35,025.30 | 13,278.57 | 1,751.00 | | 15,029.57 |
| 149 FSM-60S Fusion Splice F | 11/28/2008 | 11/28/2008 | 19,810.00 | | | 19,810.00 | 10,017.39 | 1,321.00 | | 11,338.39 |
| 136 Admin. Bldg. Heating/Cc | 11/30/2008 | 11/30/2008 | 32,493.88 | | | 32,493.88 | 24,638.48 | 3,249.00 | | 27,887.48 |
| 244 Seepex 200 GPM Pump / | 12/15/2008 | 12/15/2008 | 16,316.24 | | | 16,316.24 | 4,951.71 | 653.00 | | 5,604.71 |
| 238 Hoffman 3R Wall Mount | 12/24/2008 | 12/24/2008 | 11,657.72 | | | 11,657.72 | 5,827.59 | 777.00 | | 6,604.59 |
| 148 Franklin 8" Sand Fighter | 12/29/2008 | 12/29/2008 | 44,457.42 | | | 44,457.42 | 16,672.44 | 2,223.00 | | 18,895.44 |
| 161 1,000,000BTU Indirect F | 12/30/2008 | 12/30/2008 | 15,537.00 | | | 15,537.00 | 11,654.85 | 1,554.00 | | 13,208.85 |
| 143 (1) Benshaw Softstart 70 | 1/6/2009 | 1/6/2009 | 35,257.43 | | | 35,257.43 | 17,625.25 | 2,350.00 | | 19,975.25 |
| 162 VFD Pump Controller 15 | 2/2/2009 | 2/2/2009 | 23,100.00 | | | 23,100.00 | 11,421.67 | 1,540.00 | | 12,961.67 |
| 163 VFD Pump Controller 20 | 2/2/2009 | 2/2/2009 | 46,200.00 | | | 46,200.00 | 22,843.33 | 3,080.00 | | 25,923.33 |
| 160 Portable Air Conditioner | 2/6/2009 | 2/6/2009 | 11,325.40 | | | 11,325.40 | 8,395.89 | 1,132.00 | | 9,527.89 |
| 146 Float Valves for Yates (1 | 2/9/2009 | 2/9/2009 | 114,346.31 | | | 114,346.31 | 84,809.43 | 11,435.00 | | 96,244.43 |
| 145 Crane #6 Winze Undergr | 2/19/2009 | 2/19/2009 | 10,631.95 | | | 10,631.95 | 1,041.25 | 142.00 | | 1,183.25 |

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| Sys ID Description | Acquire | In Service | Beginning | Additions | Retired | Ending | Beginning | YTD 6/30/2017 | Retired | Ending |
|--------------------------------|------------|------------|------------|-----------|---------|------------|-----------|---------------|---------|-----------|
| 140 - Equipment & Fixtures | | | | | | | | | | |
| 200 Pump Ingersoll Rand 107 | 2/25/2009 | 2/25/2009 | 122,676.93 | | | 122,676.93 | 35,984.69 | 4,907.00 | | 40,891.69 |
| 208 Motor GE 700HP ZRH28 | 3/5/2009 | 3/5/2009 | 27,154.00 | | | 27,154.00 | 9,958.57 | 1,358.00 | | 11,316.57 |
| 158 3000HP American David | 3/6/2009 | 3/6/2009 | 78,752.15 | | | 78,752.15 | 19,250.02 | 2,625.00 | | 21,875.02 |
| 199 Pump Ingersoll Rand 100 | 3/28/2009 | 3/28/2009 | 147,258.51 | | | 147,258.51 | 42,702.59 | 5,890.00 | | 48,592.59 |
| 192 Western Tornado Sand S | 4/1/2009 | 4/1/2009 | 5,168.50 | | | 5,168.50 | 3,748.21 | 517.00 | | 4,265.21 |
| 193 Western Ultramount Pro | 4/1/2009 | 4/1/2009 | 5,247.63 | | | 5,247.63 | 3,806.19 | 525.00 | | 4,331.19 |
| 147 Danfoss Flowmatic Chec | 4/2/2009 | 4/2/2009 | 6,919.11 | | | 6,919.11 | 5,016.98 | 692.00 | | 5,708.98 |
| 198 Pump Ingersoll Rand 372 | 4/30/2009 | 4/30/2009 | 55,987.45 | | | 55,987.45 | 16,046.25 | 2,239.00 | | 18,285.25 |
| 191 Watertank Carbon steel 9 | 5/8/2009 | 5/8/2009 | 12,880.41 | | | 12,880.41 | 3,690.87 | 515.00 | | 4,205.87 |
| 164 VFD 150 HP Control Par | 5/14/2009 | 5/14/2009 | 12,705.00 | | | 12,705.00 | 6,070.17 | 847.00 | | 6,917.17 |
| 181 Trojan 3.25 Locomotive | 6/10/2009 | 6/10/2009 | 51,615.60 | | | 51,615.60 | 16,511.23 | 2,331.00 | | 18,842.23 |
| 182 Battery for Trojan Locom | 6/10/2009 | 6/10/2009 | 11,000.00 | | | 11,000.00 | 10,999.95 | | | 10,999.95 |
| 153 Huron 560 Wall Tank and | 6/11/2009 | 6/11/2009 | 6,098.08 | | | 6,098.08 | 2,160.41 | 305.00 | | 2,465.41 |
| 138 Ansul Inergen Fire Suppr | 6/23/2009 | 6/23/2009 | 12,919.00 | | | 12,919.00 | 6,027.00 | 861.00 | | 6,888.00 |
| 155 Lift Bag Kit Light US&R | 6/25/2009 | 6/25/2009 | 16,750.00 | | | 16,750.00 | 11,725.00 | 1,675.00 | | 13,400.00 |
| 135 Telephone Expansion | 6/26/2009 | 6/26/2009 | 28,249.27 | | | 28,249.27 | 19,775.00 | 2,825.00 | | 22,600.00 |
| 140 2008 Artic Cat 700 Diese | 6/30/2009 | 6/30/2009 | 10,244.54 | | | 10,244.54 | 9,732.00 | | | 9,732.00 |
| 141 2008 Artic Cat 700 Diese | 6/30/2009 | 6/30/2009 | 10,244.55 | | | 10,244.55 | 9,732.00 | | | 9,732.00 |
| 151 Portable Generator 100K | 6/30/2009 | 6/30/2009 | 27,100.00 | | | 27,100.00 | 18,970.00 | 2,710.00 | | 21,680.00 |
| 195 Ross Fuel Tank/Stand/Cc | 6/30/2009 | 6/30/2009 | 21,100.39 | | | 21,100.39 | 14,770.00 | 2,110.00 | | 16,880.00 |
| 353 JD Skid Steer 315 W/CE | 7/18/2009 | 7/18/2009 | 23,241.00 | | | 23,241.00 | 16,074.00 | 2,324.00 | | 18,398.00 |
| 354 Trojan 3.25 Locomotive | 8/28/2009 | 8/28/2009 | 51,192.71 | | | 51,192.71 | 15,785.00 | 2,310.00 | | 18,095.00 |
| 355 .36Cell/72 Volt Battery fi | 8/28/2009 | 8/28/2009 | 11,000.00 | | | 11,000.00 | 11,000.00 | | | 11,000.00 |
| 356 Sanyo Air Conditioning S | 9/1/2009 | 9/1/2009 | 41,401.66 | | | 41,401.66 | 28,290.00 | 4,140.00 | | 32,430.00 |
| 357 F-16A Dry Ice Blast Unit | 9/17/2009 | 9/17/2009 | 17,750.00 | | | 17,750.00 | 11,981.00 | 1,775.00 | | 13,756.00 |
| 358 High Voltage Cable Testi | 9/23/2009 | 9/23/2009 | 7,920.00 | | | 7,920.00 | 5,346.00 | 792.00 | | 6,138.00 |
| 359 Water Meter LUX Surfac | 10/1/2009 | 10/1/2009 | 6,011.30 | | | 6,011.30 | 4,057.00 | 601.00 | | 4,658.00 |
| 360 Wall Mounted Enclosure | 10/1/2009 | 10/1/2009 | 7,200.00 | | | 7,200.00 | 3,240.00 | 480.00 | | 3,720.00 |
| 361 8-1/2' Western Ultramou | 10/1/2009 | 10/1/2009 | 5,309.25 | | | 5,309.25 | 3,584.00 | 531.00 | | 4,115.00 |
| 362 Benshaw Softstart 700HF | 10/1/2009 | 10/1/2009 | 35,257.43 | | | 35,257.43 | 15,863.00 | 2,350.00 | | 18,213.00 |
| 364 Vertical Diesel Symo Pov | 10/22/2009 | 10/22/2009 | 8,665.05 | | | 8,665.05 | 5,774.00 | 866.00 | | 6,640.00 |
| 365 Vertical Diesel Symo Pov | 10/22/2009 | 10/22/2009 | 5,721.30 | | | 5,721.30 | 3,813.00 | 572.00 | | 4,385.00 |
| 366 Wall Mounted Enclosure | 11/1/2009 | 11/1/2009 | 7,200.00 | | | 7,200.00 | 3,200.00 | 480.00 | | 3,680.00 |
| 367 Spendrup 350HP Fan at C | 11/1/2009 | 11/1/2009 | 83,092.63 | | | 83,092.63 | 27,700.00 | 4,155.00 | | 31,855.00 |
| 368 500KVA Transformer3 P | 11/1/2009 | 11/1/2009 | 18,465.41 | | | 18,465.41 | 3,080.00 | 462.00 | | 3,542.00 |

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|----------------------------|--------------------------|------------|------------|------------|-----------|---------|------------|-----------|---------------|---------|-----------|
| 140 - Equipment & Fixtures | | | | | | | | | | | |
| 369 | Baldor VFD Motors 350F | 11/1/2009 | 11/1/2009 | 61,000.00 | | | 61,000.00 | 20,333.00 | 3,050.00 | | 23,383.00 |
| 370 | Benshaw Switch Disconn | 11/1/2009 | 11/1/2009 | 8,791.96 | | | 8,791.96 | 3,907.00 | 586.00 | | 4,493.00 |
| 371 | GE700HP GE Pump Mot | 11/1/2009 | 11/1/2009 | 31,986.00 | | | 31,986.00 | 10,660.00 | 1,599.00 | | 12,259.00 |
| 372 | 350HP Spendrup Fan at # | 11/10/2009 | 11/10/2009 | 106,641.04 | | | 106,641.04 | 35,547.00 | 5,332.00 | | 40,879.00 |
| 374 | S&C PMX Modular Met | 12/1/2009 | 12/1/2009 | 27,059.00 | | | 27,059.00 | 11,876.00 | 1,804.00 | | 13,680.00 |
| 375 | GE 8000 Series Breaker I | 12/3/2009 | 12/3/2009 | 6,464.69 | | | 6,464.69 | 2,837.00 | 431.00 | | 3,268.00 |
| 376 | GE Spectra Series Switch | 12/3/2009 | 12/3/2009 | 7,239.85 | | | 7,239.85 | 3,180.00 | 483.00 | | 3,663.00 |
| 377 (2) | A Bradley Powerflex . | 12/3/2009 | 12/3/2009 | 15,068.40 | | | 15,068.40 | 6,616.00 | 1,005.00 | | 7,621.00 |
| 378 | Multi Media Sand Filter | 12/3/2009 | 12/3/2009 | 615,021.84 | | | 615,021.84 | 80,975.00 | 12,300.00 | | 93,275.00 |
| 397 | Telephone System Upgra | 12/7/2009 | 12/7/2009 | 17,712.14 | | | 17,712.14 | 11,659.00 | 1,771.00 | | 13,430.00 |
| 379 | Johnson Controls HVAC | 1/1/2010 | 1/1/2010 | 18,921.00 | | | 18,921.00 | 12,298.00 | 1,892.00 | | 14,190.00 |
| 380 | Johnson Controls HVAC | 1/1/2010 | 1/1/2010 | 20,427.00 | | | 20,427.00 | 13,279.00 | 2,043.00 | | 15,322.00 |
| 381 | HVAC Air Handling Uni | 1/1/2010 | 1/1/2010 | 20,862.92 | | | 20,862.92 | 13,559.00 | 2,086.00 | | 15,645.00 |
| 382 | Chemical Outdoor Stora | 1/15/2010 | 1/15/2010 | 28,869.55 | | | 28,869.55 | 9,380.00 | 1,443.00 | | 10,823.00 |
| 383 | HydraulicClamb/Pneuma | 1/25/2010 | 1/25/2010 | 26,940.00 | | | 26,940.00 | 17,286.00 | 2,694.00 | | 19,980.00 |
| 384 | Fire Pump | 2/1/2010 | 2/1/2010 | 13,163.08 | | | 13,163.08 | 8,444.00 | 1,316.00 | | 9,760.00 |
| 385 | Jockey Pump | 2/1/2010 | 2/1/2010 | 13,163.08 | | | 13,163.08 | 8,444.00 | 1,316.00 | | 9,760.00 |
| 386 | HY-25XLT 2-1/2" Sq Dr | 2/4/2010 | 2/4/2010 | 13,957.43 | | | 13,957.43 | 8,958.00 | 1,396.00 | | 10,354.00 |
| 399 | Telephone System LUX S | 2/15/2010 | 2/15/2010 | 9,218.04 | | | 9,218.04 | 5,916.00 | 922.00 | | 6,838.00 |
| 387 | Wall Mounted Enclosure | 3/1/2010 | 3/1/2010 | 7,200.00 | | | 7,200.00 | 3,040.00 | 480.00 | | 3,520.00 |
| 388 | S&C PMX Modular Met | 3/1/2010 | 3/1/2010 | 27,059.00 | | | 27,059.00 | 11,425.00 | 1,804.00 | | 13,229.00 |
| 389 | GE Switchgear | 3/1/2010 | 3/1/2010 | 58,844.32 | | | 58,844.32 | 24,846.00 | 3,923.00 | | 28,769.00 |
| 390 | MQ Generator 15KW Mc | 3/1/2010 | 3/1/2010 | 10,117.00 | | | 10,117.00 | 6,409.00 | 1,012.00 | | 7,421.00 |
| 391 | Atlas Copco XAS 185 CF | 3/1/2010 | 3/1/2010 | 8,924.50 | | | 8,924.50 | 5,649.00 | 892.00 | | 6,541.00 |
| 392 | Atlas Copco XAS 185 CF | 3/1/2010 | 3/1/2010 | 8,924.50 | | | 8,924.50 | 5,649.00 | 892.00 | | 6,541.00 |
| 393 | 115V PSI Hytorc Pump | 3/30/2010 | 3/30/2010 | 5,108.37 | | | 5,108.37 | 3,194.00 | 511.00 | | 3,705.00 |
| 394 | Clean Room-4850' MJD | 5/31/2010 | 5/31/2010 | 116,000.00 | | | 116,000.00 | 70,567.00 | 11,600.00 | | 82,167.00 |
| 395 | S&C Metal Enclosed Fus | 6/30/2010 | 6/30/2010 | 7,200.00 | | | 7,200.00 | 2,880.00 | 480.00 | | 3,360.00 |
| 398 | Telephone System Upgra | 6/30/2010 | 6/30/2010 | 8,451.00 | | | 8,451.00 | 5,070.00 | 845.00 | | 5,915.00 |
| 400 | Telephone System Ross I | 6/30/2010 | 6/30/2010 | 6,683.90 | | | 6,683.90 | 4,008.00 | 668.00 | | 4,676.00 |
| 426 | S&C Wall-Mounted Met | 7/1/2010 | 7/1/2010 | 7,200.00 | | | 7,200.00 | 2,880.00 | 480.00 | | 3,360.00 |
| 430 | Chem Grout Machine Pu | 7/29/2010 | 7/29/2010 | 5,500.00 | | | 5,500.00 | 3,254.00 | 550.00 | | 3,804.00 |
| 420 | Bobcat Skidsteer S300 D | 8/2/2010 | 8/2/2010 | 33,030.64 | | | 33,030.64 | 19,543.00 | 3,303.00 | | 22,846.00 |
| 423 | Air Compressor 125HP F | 9/1/2010 | 9/1/2010 | 18,515.00 | | | 18,515.00 | 10,803.00 | 1,852.00 | | 12,655.00 |
| 422 | JD Angle Broom for Skid | 9/3/2010 | 9/3/2010 | 5,925.00 | | | 5,925.00 | 3,454.00 | 592.00 | | 4,046.00 |

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|--------------------------------|------------|------------|------------|-----------|---------|------------|------------|---------------|---------|------------|
| 140 - Equipment & Fixtures | | | | | | | | | | |
| 421 S&C PMX Modular Met | 9/16/2010 | 9/16/2010 | 27,059.00 | | | 27,059.00 | 10,373.00 | 1,804.00 | | 12,177.00 |
| 439 Ross Dry Phone/Data Sys | 9/24/2010 | 9/24/2010 | 9,183.36 | | | 9,183.36 | 5,279.00 | 918.00 | | 6,197.00 |
| 440 Ross Shaft UG Phone/Da | 10/25/2010 | 10/25/2010 | 8,550.63 | | | 8,550.63 | 4,845.00 | 855.00 | | 5,700.00 |
| 441 Yates E&O Phone/Data S | 11/30/2010 | 11/30/2010 | 12,314.24 | | | 12,314.24 | 6,873.00 | 1,231.00 | | 8,104.00 |
| 424 Radon Monitor Alphagua | 12/1/2010 | 12/1/2010 | 15,028.98 | | | 15,028.98 | 8,392.00 | 1,503.00 | | 9,895.00 |
| 416 Locomotive 1975 8 Ton # | 1/27/2011 | 1/27/2011 | 130,000.00 | | | 130,000.00 | 100,593.00 | 18,571.00 | | 119,164.00 |
| 417 Locomotive 1975 8 Ton # | 1/27/2011 | 1/27/2011 | 130,000.00 | | | 130,000.00 | 100,593.00 | 18,571.00 | | 119,164.00 |
| 418 Loader 2007 LT 210 #07- | 1/27/2011 | 1/27/2011 | 195,000.00 | | | 195,000.00 | 105,625.00 | 19,500.00 | | 125,125.00 |
| 427 Shotcrete Mixing Auger | 2/28/2011 | 2/28/2011 | 18,450.00 | | | 18,450.00 | 9,840.00 | 1,845.00 | | 11,685.00 |
| 438 Admin Building Phone/D | 3/1/2011 | 3/1/2011 | 3,876.26 | | | 3,876.26 | 2,069.00 | 388.00 | | 2,457.00 |
| 432 Loader 2007 LT350 #07- | 5/31/2011 | 5/31/2011 | 230,000.00 | | | 230,000.00 | 116,917.00 | 23,000.00 | | 139,917.00 |
| 451 JD XAS 375 CFM Air Co | 9/1/2011 | 9/1/2011 | 27,900.00 | | | 27,900.00 | 13,485.00 | 2,790.00 | | 16,275.00 |
| 469 Transformer 45KVA 600 | 9/1/2011 | 9/1/2011 | 5,298.00 | | | 5,298.00 | 638.00 | 132.00 | | 770.00 |
| 453 Battery Charger for 9-Tor | 1/1/2012 | 1/1/2012 | 6,127.78 | | | 6,127.78 | 2,758.00 | 613.00 | | 3,371.00 |
| 455 TEI 260 Hydraulic Percu | 1/1/2012 | 1/1/2012 | 32,949.71 | | | 32,949.71 | 14,827.00 | 3,295.00 | | 18,122.00 |
| 454 Lefon Portable Electric P | 1/4/2012 | 1/4/2012 | 8,218.50 | | | 8,218.50 | 3,699.00 | 822.00 | | 4,521.00 |
| 461 Lull 54' Telescopic Forkli | 1/12/2012 | 1/12/2012 | 52,500.00 | | | 52,500.00 | 23,625.00 | 5,250.00 | | 28,875.00 |
| 456 Ross Shaft Work Deck | 1/20/2012 | 1/20/2012 | 16,395.00 | | | 16,395.00 | 7,243.00 | 1,640.00 | | 8,883.00 |
| 459 JD 315 Skid Steer W/Buc | 2/10/2012 | 2/10/2012 | 25,234.00 | | | 25,234.00 | 11,143.00 | 2,523.00 | | 13,666.00 |
| 457 GE 1500KVA 480/277V | 3/1/2012 | 3/1/2012 | 102,230.90 | | | 102,230.90 | 11,076.00 | 2,556.00 | | 13,632.00 |
| 458 GE Switchboard 1500KV | 3/1/2012 | 3/1/2012 | 20,762.10 | | | 20,762.10 | 5,997.00 | 1,384.00 | | 7,381.00 |
| 462 Yates Hoist South Cage | 5/1/2012 | 5/1/2012 | 123,484.05 | | | 123,484.05 | 51,450.00 | 12,348.00 | | 63,798.00 |
| 480 Rope Dog System Yates ' | 5/1/2012 | 5/1/2012 | 69,642.40 | | | 69,642.40 | 29,017.00 | 6,964.00 | | 35,981.00 |
| 599 Yates Rope Dog System | 5/1/2012 | 5/1/2012 | 227,216.99 | | | 227,216.99 | 59,918.87 | 15,148.00 | | 75,066.87 |
| 463 Caterpillar Diesel Genera | 5/3/2012 | 5/3/2012 | 54,313.83 | | | 54,313.83 | 22,629.00 | 5,431.00 | | 28,060.00 |
| 464 Profi 1-Ton Air Hoist 25' | 5/8/2012 | 5/8/2012 | 6,970.00 | | | 6,970.00 | 2,904.00 | 697.00 | | 3,601.00 |
| 465 Profi 1-Ton Air Hoist 25' | 5/8/2012 | 5/8/2012 | 6,970.00 | | | 6,970.00 | 2,904.00 | 697.00 | | 3,601.00 |
| 470 S&C Metal Enclosed Swi | 6/1/2012 | 6/1/2012 | 21,656.40 | | | 21,656.40 | 5,896.00 | 1,444.00 | | 7,340.00 |
| 471 S&C Metal Enclosed Swi | 6/1/2012 | 6/1/2012 | 21,656.40 | | | 21,656.40 | 5,896.00 | 1,444.00 | | 7,340.00 |
| 472 S&C Metal Enclosed Swi | 6/1/2012 | 6/1/2012 | 21,656.40 | | | 21,656.40 | 5,896.00 | 1,444.00 | | 7,340.00 |
| 473 S&C Metal Enclosed Swi | 6/1/2012 | 6/1/2012 | 21,656.40 | | | 21,656.40 | 5,896.00 | 1,444.00 | | 7,340.00 |
| 474 S&C Metal Enclosed Swi | 6/1/2012 | 6/1/2012 | 21,656.40 | | | 21,656.40 | 5,896.00 | 1,444.00 | | 7,340.00 |
| 475 Multilin PQM II Meter fo | 6/1/2012 | 6/1/2012 | 5,389.00 | | | 5,389.00 | 1,466.00 | 359.00 | | 1,825.00 |
| 466 Scanstation C10 Laser Sc | 6/5/2012 | 6/5/2012 | 59,609.44 | | | 59,609.44 | 24,341.00 | 5,961.00 | | 30,302.00 |
| 467 Refuge Chamber 6X6X1 | 6/19/2012 | 6/19/2012 | 38,105.00 | | | 38,105.00 | 7,620.00 | 1,905.00 | | 9,525.00 |

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| Sys ID Description | Acquire | In Service | Beginning | Additions | Retired | Ending | Beginning | YTD 6/30/2017 | Retired | Ending |
|-------------------------------|------------|------------|------------|-----------|---------|------------|-----------|---------------|---------|------------|
| 140 - Equipment & Fixtures | | | | | | | | | | |
| 468 Refuge Chamber 6X6X1 | 6/19/2012 | 6/19/2012 | 38,105.00 | | | 38,105.00 | 7,620.00 | 1,905.00 | | 9,525.00 |
| 496 Justice Fire & Safety Pan | 7/1/2012 | 7/1/2012 | 7,588.00 | | | 7,588.00 | 2,024.00 | 506.00 | | 2,530.00 |
| 497 Quincy Air Regulator | 7/1/2012 | 7/1/2012 | 17,788.76 | | | 17,788.76 | 7,116.00 | 1,779.00 | | 8,895.00 |
| 498 Cornell McKeon Rollup I | 7/1/2012 | 7/1/2012 | 8,980.00 | | | 8,980.00 | 2,396.00 | 599.00 | | 2,995.00 |
| 499 Rheem Water Heater | 7/1/2012 | 7/1/2012 | 10,070.00 | | | 10,070.00 | 4,028.00 | 1,007.00 | | 5,035.00 |
| 500 Johnson Controls Air Har | 7/1/2012 | 7/1/2012 | 25,071.00 | | | 25,071.00 | 10,028.00 | 2,507.00 | | 12,535.00 |
| 501 Johnson Controls Air Har | 7/1/2012 | 7/1/2012 | 21,529.00 | | | 21,529.00 | 8,612.00 | 2,153.00 | | 10,765.00 |
| 502 Johnson Controls Air Har | 7/1/2012 | 7/1/2012 | 21,529.00 | | | 21,529.00 | 8,612.00 | 2,153.00 | | 10,765.00 |
| 503 Johnson Controls Air Har | 7/1/2012 | 7/1/2012 | 17,039.00 | | | 17,039.00 | 6,816.00 | 1,704.00 | | 8,520.00 |
| 504 Johnson Controls Chiller | 7/1/2012 | 7/1/2012 | 17,245.00 | | | 17,245.00 | 6,896.00 | 1,724.00 | | 8,620.00 |
| 505 Johnson Controls Chiller | 7/1/2012 | 7/1/2012 | 17,245.00 | | | 17,245.00 | 6,896.00 | 1,724.00 | | 8,620.00 |
| 506 Johnson Controls Air Har | 7/1/2012 | 7/1/2012 | 17,436.00 | | | 17,436.00 | 6,976.00 | 1,744.00 | | 8,720.00 |
| 525 Line Power Transformers | 7/1/2012 | 7/1/2012 | 5,000.00 | | | 5,000.00 | 500.00 | 125.00 | | 625.00 |
| 526 LN Tank Concrete Pad | 8/1/2012 | 8/1/2012 | 7,920.00 | | | 7,920.00 | 1,551.00 | 396.00 | | 1,947.00 |
| 484 R&M Hoist 7.5 Ton | 8/2/2012 | 8/2/2012 | 19,510.50 | | | 19,510.50 | 7,641.00 | 1,951.00 | | 9,592.00 |
| 485 R&M Hoist 10 Ton | 8/2/2012 | 8/2/2012 | 21,560.50 | | | 21,560.50 | 8,444.00 | 2,156.00 | | 10,600.00 |
| 490 Skyclimber Suspended W | 9/6/2012 | 9/6/2012 | 67,172.86 | | | 67,172.86 | 25,749.00 | 6,717.00 | | 32,466.00 |
| 491 Skyclimber Electric Hois | 9/6/2012 | 9/6/2012 | 6,586.85 | | | 6,586.85 | 2,526.00 | 659.00 | | 3,185.00 |
| 492 Skyclimber Electric Hois | 9/6/2012 | 9/6/2012 | 6,586.85 | | | 6,586.85 | 2,526.00 | 659.00 | | 3,185.00 |
| 493 Skyclimber Electric Hois | 9/6/2012 | 9/6/2012 | 6,586.85 | | | 6,586.85 | 2,526.00 | 659.00 | | 3,185.00 |
| 494 Skyclimber Electric Hois | 9/6/2012 | 9/6/2012 | 6,586.85 | | | 6,586.85 | 2,526.00 | 659.00 | | 3,185.00 |
| 489 Ross Cage Work Deck | 9/12/2012 | 9/12/2012 | 70,226.22 | | | 70,226.22 | 38,456.00 | 10,032.00 | | 48,488.00 |
| 486 LUX Water Treatment Sy | 9/25/2012 | 9/25/2012 | 147,582.73 | | | 147,582.73 | 36,896.00 | 9,839.00 | | 46,735.00 |
| 483 North Skip Work Deck (F | 9/28/2012 | 9/28/2012 | 30,837.94 | | | 30,837.94 | 16,519.00 | 4,405.00 | | 20,924.00 |
| 487 Jib Crane Ceiling Mount | 10/1/2012 | 10/1/2012 | 28,175.00 | | | 28,175.00 | 10,567.00 | 2,818.00 | | 13,385.00 |
| 488 Jib Crane Ceiling Mount | 10/1/2012 | 10/1/2012 | 30,450.00 | | | 30,450.00 | 11,419.00 | 3,045.00 | | 14,464.00 |
| 508 S205 Skidsteer W/Forks | 10/19/2012 | 10/19/2012 | 21,000.00 | | | 21,000.00 | 7,700.00 | 2,100.00 | | 9,800.00 |
| 495 LUX Water Tank 4850 | 10/22/2012 | 10/22/2012 | 364,225.82 | | | 364,225.82 | 89,034.00 | 24,282.00 | | 113,316.00 |
| 524 Line Power Transformer | 12/10/2012 | 12/10/2012 | 8,000.00 | | | 8,000.00 | 717.00 | 200.00 | | 917.00 |
| 512 Profi 1Ton Air Hoist 25' | 1/16/2013 | 1/16/2013 | 7,415.07 | | | 7,415.07 | 2,532.00 | 741.00 | | 3,273.00 |
| 513 Caterpillar Diesel Genera | 2/1/2013 | 2/1/2013 | 28,434.00 | | | 28,434.00 | 9,714.00 | 2,843.00 | | 12,557.00 |
| 516 4850 Refuge Area Coolin | 2/1/2013 | 2/1/2013 | 9,085.66 | | | 9,085.66 | 3,103.00 | 908.00 | | 4,011.00 |
| 517 4850 Refuge Area Coolin | 2/1/2013 | 2/1/2013 | 9,085.67 | | | 9,085.67 | 3,103.00 | 908.00 | | 4,011.00 |
| 518 4850 Refuge Area Coolin | 2/1/2013 | 2/1/2013 | 9,085.67 | | | 9,085.67 | 3,103.00 | 908.00 | | 4,011.00 |
| 519 MS Scrubbing Systems C | 2/1/2013 | 2/1/2013 | 17,040.00 | | | 17,040.00 | 5,822.00 | 1,704.00 | | 7,526.00 |

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|-------------------------------|------------|------------|------------|-----------|---------|------------|------------|---------------|---------|------------|
| 140 - Equipment & Fixtures | | | | | | | | | | |
| 520 MS Scrubbing Systems L | 2/1/2013 | 2/1/2013 | 17,040.00 | | | 17,040.00 | 5,822.00 | 1,704.00 | | 7,526.00 |
| 515 Ross Headframe Garage I | 2/26/2013 | 2/26/2013 | 22,621.00 | | | 22,621.00 | 7,540.00 | 2,262.00 | | 9,802.00 |
| 523 Modification to Ross Wo | 4/16/2013 | 4/16/2013 | 7,010.22 | | | 7,010.22 | 3,170.00 | 1,001.00 | | 4,171.00 |
| 528 25HP Diesel Hydraulic P | 6/15/2013 | 6/15/2013 | 11,070.85 | | | 11,070.85 | 3,413.00 | 1,107.00 | | 4,520.00 |
| 536 IT Generator Concrete Pa | 8/1/2013 | 8/1/2013 | 6,640.00 | | | 6,640.00 | 968.00 | 332.00 | | 1,300.00 |
| 538 Yates Loading Dock | 9/9/2013 | 9/9/2013 | 7,040.00 | | | 7,040.00 | 799.00 | 282.00 | | 1,081.00 |
| 540 IT Generator Install | 10/31/2013 | 10/31/2013 | 28,056.44 | | | 28,056.44 | 7,482.00 | 2,806.00 | | 10,288.00 |
| 554 Hitachi CPWU9410 Proji | 1/18/2014 | 1/18/2014 | 13,228.18 | | | 13,228.18 | 3,197.00 | 1,323.00 | | 4,520.00 |
| 542 Chem Grout Machine Pu | 3/10/2014 | 3/10/2014 | 5,909.59 | | | 5,909.59 | 1,379.00 | 591.00 | | 1,970.00 |
| 547 Bolter J.H. Fletcher & Co | 4/25/2014 | 4/25/2014 | 546,642.95 | | | 546,642.95 | 47,376.00 | 21,866.00 | | 69,242.00 |
| 550 Big Blue 300 Pro Kubota | 5/2/2014 | 5/2/2014 | 10,445.00 | | | 10,445.00 | 2,262.00 | 1,044.00 | | 3,306.00 |
| 551 Big Blue 300 Pro Kubota | 5/2/2014 | 5/2/2014 | 10,445.00 | | | 10,445.00 | 2,262.00 | 1,044.00 | | 3,306.00 |
| 548 2014 Toolmaster Trailer | 5/8/2014 | 5/8/2014 | 11,200.00 | | | 11,200.00 | 2,427.00 | 1,120.00 | | 3,547.00 |
| 553 Ultrasonic Flaw Detector | 6/9/2014 | 6/9/2014 | 11,742.78 | | | 11,742.78 | 2,446.00 | 1,174.00 | | 3,620.00 |
| 579 Line Power Skid Transfo | 7/1/2014 | 7/1/2014 | 5,000.00 | | | 5,000.00 | 250.00 | 125.00 | | 375.00 |
| 580 Line Power Skid Transfo | 7/1/2014 | 7/1/2014 | 8,000.00 | | | 8,000.00 | 400.00 | 200.00 | | 600.00 |
| 566 Davis Campus Dehumidi | 7/22/2014 | 7/22/2014 | 508,965.03 | | | 508,965.03 | 97,551.00 | 50,896.00 | | 148,447.00 |
| 565 Fisher 2" Valves (2) | 8/8/2014 | 8/8/2014 | 13,554.96 | | | 13,554.96 | 2,597.00 | 1,355.00 | | 3,952.00 |
| 568 Canon EOS C100 Cinem | 8/8/2014 | 8/8/2014 | 5,499.00 | | | 5,499.00 | 2,108.00 | 1,100.00 | | 3,208.00 |
| 569 WTP Mix Tank | 8/27/2014 | 8/27/2014 | 110,641.63 | | | 110,641.63 | 8,114.00 | 4,426.00 | | 12,540.00 |
| 572 HVAC Unit - Adm. Builc | 10/10/2014 | 10/10/2014 | 17,358.78 | | | 17,358.78 | 3,038.00 | 1,736.00 | | 4,774.00 |
| 571 Concrete Bucket Dumas I | 10/22/2014 | 10/22/2014 | 18,509.51 | | | 18,509.51 | 4,407.00 | 2,644.00 | | 7,051.00 |
| 573 Cement Hopper E-Z Fabr | 10/22/2014 | 10/22/2014 | 18,195.00 | | | 18,195.00 | 4,332.00 | 2,599.00 | | 6,931.00 |
| 577 Pressure Tank 660Gal.on | 11/5/2014 | 11/5/2014 | 6,081.27 | | | 6,081.27 | 1,013.00 | 608.00 | | 1,621.00 |
| 574 Yates Work Platform (Sk | 12/22/2014 | 12/22/2014 | 30,419.20 | | | 30,419.20 | 4,563.00 | 3,042.00 | | 7,605.00 |
| 575 Thern Winch (Helical-Be | 12/23/2014 | 12/23/2014 | 7,909.00 | | | 7,909.00 | 1,186.00 | 791.00 | | 1,977.00 |
| 581 Mining Controls Portable | 1/1/2015 | 1/1/2015 | 5,000.00 | | | 5,000.00 | 187.00 | 125.00 | | 312.00 |
| 576 Profi 1-Ton Air Hoist 25' | 1/26/2015 | 1/26/2015 | 7,675.00 | | | 7,675.00 | 1,088.00 | 768.00 | | 1,856.00 |
| 578 JLG Electric Scissor Lift | 2/24/2015 | 2/24/2015 | 20,470.00 | | | 20,470.00 | 2,729.00 | 2,047.00 | | 4,776.00 |
| 584 Network Video Recorder | 6/30/2015 | 6/30/2015 | 5,984.00 | | | 5,984.00 | 4,087.86 | 1,330.00 | | 5,417.86 |
| 585 Shot Tech Robotic Arm S | 6/30/2015 | 6/30/2015 | 171,390.00 | | | 171,390.00 | 125,801.62 | 34,278.00 | | 160,079.62 |
| 589 Topcon GPT Data Collec | 6/30/2015 | 6/30/2015 | 9,850.00 | | | 9,850.00 | 4,788.16 | 1,642.00 | | 6,430.16 |
| 590 Wolverine 25D Hydraulic | 6/30/2015 | 6/30/2015 | 12,816.00 | | | 12,816.00 | 5,184.25 | 1,602.00 | | 6,786.25 |
| 591 Micro 1000 Data Logger | 6/30/2015 | 6/30/2015 | 7,705.14 | | | 7,705.14 | 5,503.69 | 2,201.00 | | 7,704.69 |
| 592 Micro 1000 Data Logger | 6/30/2015 | 6/30/2015 | 7,705.14 | | | 7,705.14 | 5,503.69 | 2,201.00 | | 7,704.69 |

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|-------------------------------|------------|------------|-----------|-----------|---------|-----------|-----------|---------------|---------|-----------|
| 140 - Equipment & Fixtures | | | | | | | | | | |
| 593 Mini Track Loader | 6/30/2015 | 6/30/2015 | 22,546.19 | | | 22,546.19 | 9,827.78 | 3,469.00 | | 13,296.78 |
| 594 Vertical Diesel Symo Pov | 6/30/2015 | 6/30/2015 | 14,023.44 | | | 14,023.44 | 7,949.23 | 2,157.00 | | 10,106.23 |
| 595 IT Generac Generator | 6/30/2015 | 6/30/2015 | 26,208.14 | | | 26,208.14 | 12,301.76 | 3,744.00 | | 16,045.76 |
| 596 Kubota RTV Utility | 6/30/2015 | 6/30/2015 | 11,542.33 | | | 11,542.33 | 4,272.14 | 1,649.00 | | 5,921.14 |
| 597 Kubota RTV Utility | 6/30/2015 | 6/30/2015 | 11,542.33 | | | 11,542.33 | 4,272.14 | 1,649.00 | | 5,921.14 |
| 598 HD Video Conferencing | 6/30/2015 | 6/30/2015 | 13,990.26 | | | 13,990.26 | 8,705.08 | 2,798.00 | | 11,503.08 |
| 636 Neutron Doors (2)Lead R | 7/1/2015 | 7/1/2015 | 89,520.00 | | | 89,520.00 | 8,952.00 | 8,952.00 | | 17,904.00 |
| 640 DDX Praction Valve Re | 7/22/2015 | 7/22/2015 | 12,801.00 | | | 12,801.00 | 1,173.00 | 1,280.00 | | 2,453.00 |
| 637 Lighting Inverter Ross Ca | 7/31/2015 | 7/31/2015 | 10,000.00 | | | 10,000.00 | 917.00 | 1,000.00 | | 1,917.00 |
| 638 Transformer 300KVA 12 | 7/31/2015 | 7/31/2015 | 20,572.35 | | | 20,572.35 | 471.00 | 514.00 | | 985.00 |
| 639 Fire Alarm Panel Ross Ca | 7/31/2015 | 7/31/2015 | 18,291.60 | | | 18,291.60 | 1,118.00 | 1,219.00 | | 2,337.00 |
| 610 S&CMetal Encl.Switchge | 8/1/2015 | 8/1/2015 | 81,000.00 | | | 81,000.00 | 4,950.00 | 5,400.00 | | 10,350.00 |
| 629 AHU-1-Ross Campus Air | 9/9/2015 | 9/9/2015 | 12,695.62 | | | 12,695.62 | 1,058.00 | 1,270.00 | | 2,328.00 |
| 630 AHU-2-Ross Campus Air | 9/9/2015 | 9/9/2015 | 12,695.62 | | | 12,695.62 | 1,058.00 | 1,270.00 | | 2,328.00 |
| 631 DOAS-1Ross Campus Air | 9/9/2015 | 9/9/2015 | 11,691.80 | | | 11,691.80 | 974.00 | 1,169.00 | | 2,143.00 |
| 632 Chiller CH-1 Ross Camp | 9/9/2015 | 9/9/2015 | 57,680.96 | | | 57,680.96 | 4,807.00 | 5,768.00 | | 10,575.00 |
| 633 AHU-1 BSUCleanroom / | 9/9/2015 | 9/9/2015 | 20,988.00 | | | 20,988.00 | 1,749.00 | 2,099.00 | | 3,848.00 |
| 634 Heat Exchanger Ross Car | 9/9/2015 | 9/9/2015 | 26,581.62 | | | 26,581.62 | 2,215.00 | 2,658.00 | | 4,873.00 |
| 635 Liq.NitrogenDistri.Syster | 9/9/2015 | 9/9/2015 | 22,654.00 | | | 22,654.00 | 1,888.00 | 2,265.00 | | 4,153.00 |
| 612 Polycom16ChannelMicV | 10/14/2015 | 10/14/2015 | 8,030.30 | | | 8,030.30 | 1,204.00 | 1,606.00 | | 2,810.00 |
| 613 3-Series Digital Media Pr | 10/14/2015 | 10/14/2015 | 7,464.30 | | | 7,464.30 | 1,120.00 | 1,493.00 | | 2,613.00 |
| 614 Polycom EagleEyeVCam | 10/14/2015 | 10/14/2015 | 12,259.30 | | | 12,259.30 | 1,839.00 | 2,452.00 | | 4,291.00 |
| 615 Hitachi CPWU9411 Proj | 10/14/2015 | 10/14/2015 | 13,803.30 | | | 13,803.30 | 2,070.00 | 2,761.00 | | 4,831.00 |
| 616 SMART Board 84 Flat P | 10/14/2015 | 10/14/2015 | 16,331.32 | | | 16,331.32 | 2,450.00 | 3,266.00 | | 5,716.00 |
| 617 Polycom 16 Channel Mic | 10/14/2015 | 10/14/2015 | 8,030.30 | | | 8,030.30 | 1,204.00 | 1,606.00 | | 2,810.00 |
| 618 Polycom 16Channel Micl | 10/14/2015 | 10/14/2015 | 8,030.30 | | | 8,030.30 | 1,204.00 | 1,606.00 | | 2,810.00 |
| 619 Crestron 3 Series Digital | 10/14/2015 | 10/14/2015 | 7,464.30 | | | 7,464.30 | 1,120.00 | 1,493.00 | | 2,613.00 |
| 620 Polycom Eagle Eye V Ca | 10/14/2015 | 10/14/2015 | 12,259.30 | | | 12,259.30 | 1,839.00 | 2,452.00 | | 4,291.00 |
| 611 Yates Skip Bonnet E-Z F | 10/24/2015 | 10/24/2015 | 30,147.20 | | | 30,147.20 | 2,010.00 | 3,015.00 | | 5,025.00 |
| 628 ET Globe Valve - Fisher I | 2/8/2016 | 2/8/2016 | 8,978.72 | | | 8,978.72 | 374.00 | 898.00 | | 1,272.00 |
| 625 LG 79" TV | 3/14/2016 | 3/14/2016 | 8,040.11 | | | 8,040.11 | 536.00 | 1,608.00 | | 2,144.00 |
| 626 Cable Puller Assembly | 3/16/2016 | 3/16/2016 | 5,763.01 | | | 5,763.01 | 144.00 | 576.00 | | 720.00 |
| 651 Yates Skip Bonnet W/De | 3/25/2016 | 3/25/2016 | 16,040.25 | | | 16,040.25 | 401.00 | 1,604.00 | | 2,005.00 |
| 627 IVAC PV500 Vacuum Sy | 5/27/2016 | 5/27/2016 | 47,984.50 | | | 47,984.50 | 400.00 | 4,798.00 | | 5,198.00 |
| 654 Snow Plow 8'6" VPlow Jr | 12/6/2016 | 12/6/2016 | | 6,594.00 | | 6,594.00 | | 385.00 | | 385.00 |

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|---|--------------------------|------------|------------|---------------|------------|-------------|---------------|--------------|---------------|------------|--------------|
| Sys ID | Description | Acquire | In Service | Beginning | Additions | Retired | Ending | Beginning | YTD 6/30/2017 | Retired | Ending |
| 140 - Equipment & Fixtures | | | | | | | | | | | |
| 656 | Milliken 16"Eccent.Plug | 1/3/2017 | 1/3/2017 | | 10,030.30 | | 10,030.30 | | 502.00 | | 502.00 |
| 657 | Milliken 8" Eccent. Plug | 1/3/2017 | 1/3/2017 | | 5,746.55 | | 5,746.55 | | 287.00 | | 287.00 |
| 658 | McCrometer Mag-Flo M | 1/3/2017 | 1/3/2017 | | 6,979.65 | | 6,979.65 | | 349.00 | | 349.00 |
| 676 | Radon Removal System | 6/30/2017 | 6/30/2017 | | 421,974.38 | | 421,974.38 | | | | 0.00 |
| 678 | Atlas Copco Air Compres | 6/30/2017 | 6/30/2017 | | 26,300.00 | | 26,300.00 | | | | 0.00 |
| 679 | Atlas Copco Air Dryer R | 6/30/2017 | 6/30/2017 | | 7,425.00 | | 7,425.00 | | | | 0.00 |
| 680 | RO Reverse Osmosis Sys | 6/30/2017 | 6/30/2017 | | 49,328.24 | | 49,328.24 | | | | 0.00 |
| 681 | FCU-I Fan-RadonRemBl | 6/30/2017 | 6/30/2017 | | 7,556.82 | | 7,556.82 | | | | 0.00 |
| | | | | 10,368,448.02 | 541,934.94 | (10,817.00) | 10,899,565.96 | 3,655,876.66 | 745,659.00 | (9,647.70) | 4,391,887.96 |
| 150 - Furniture & Fixtures | | | | | | | | | | | |
| 249 | Blinds | 6/1/2006 | 6/1/2006 | 1,877.92 | | | 1,877.92 | 1,877.25 | | | 1,877.25 |
| 250 | 6X8 Workstations - Adm | 12/31/2008 | 12/31/2008 | 67,297.83 | | | 67,297.83 | 33,645.26 | 4,486.00 | | 38,131.26 |
| 251 | Blinds - Admin Bldg | 2/1/2009 | 2/1/2009 | 5,035.75 | | | 5,035.75 | 3,737.82 | 504.00 | | 4,241.82 |
| | | | | 74,211.50 | 0.00 | 0.00 | 74,211.50 | 39,260.33 | 4,990.00 | 0.00 | 44,250.33 |
| 160 - Improvements | | | | | | | | | | | |
| 189 | Carpet - Admin Bldg | 4/25/2006 | 4/25/2006 | 6,589.30 | | | 6,589.30 | 6,589.29 | | | 6,589.29 |
| 283 | Office Remodel - Admin | 6/1/2006 | 6/1/2006 | 19,584.00 | | | 19,584.00 | 19,584.00 | | | 19,584.00 |
| 284 | Office Remodel/Painting | 6/1/2006 | 6/1/2006 | 10,898.27 | | | 10,898.27 | 10,898.27 | | | 10,898.27 |
| 285 | Yates Building Renovatic | 2/14/2007 | 2/14/2007 | 16,714.32 | | | 16,714.32 | 3,279.43 | 334.00 | | 3,613.43 |
| 263 | Power Line East Sub Stat | 7/27/2007 | 7/27/2007 | 31,222.00 | | | 31,222.00 | 4,992.44 | 624.00 | | 5,616.44 |
| 269 | Ross Guard Station | 5/31/2008 | 5/31/2008 | 8,617.06 | | | 8,617.06 | 1,376.34 | 172.00 | | 1,548.34 |
| 271 | Ross Hoist Building | 6/30/2008 | 6/30/2008 | 197,674.59 | | | 197,674.59 | 31,624.49 | 3,953.00 | | 35,577.49 |
| 286 | Kitchen Improvements - , | 6/30/2008 | 6/30/2008 | 5,792.72 | | | 5,792.72 | 927.85 | 116.00 | | 1,043.85 |
| 259 | Gas Line System (Existin | 7/1/2008 | 7/1/2008 | 5,795.00 | | | 5,795.00 | 1,855.80 | 232.00 | | 2,087.80 |
| 261 | Parking Lot - Admin Are | 7/1/2008 | 7/1/2008 | 60,000.00 | | | 60,000.00 | 24,000.00 | 3,000.00 | | 27,000.00 |
| 264 | Power Line Oro Hondo 6' | 7/1/2008 | 7/1/2008 | 8,250.00 | | | 8,250.00 | 1,320.00 | 165.00 | | 1,485.00 |
| 265 | Power Line Ross 69KV P | 7/1/2008 | 7/1/2008 | 25,000.00 | | | 25,000.00 | 4,000.00 | 500.00 | | 4,500.00 |
| 267 | Rail System Undergrounc | 7/1/2008 | 7/1/2008 | 61,267.89 | | | 61,267.89 | 9,800.36 | 1,225.00 | | 11,025.36 |
| 275 | Ross Yard (Gravel Yard) | 7/1/2008 | 7/1/2008 | 22,277.00 | | | 22,277.00 | 4,455.93 | 557.00 | | 5,012.93 |
| 282 | Yates Yard (Gravel Yard) | 7/1/2008 | 7/1/2008 | 16,282.20 | | | 16,282.20 | 3,256.06 | 407.00 | | 3,663.06 |
| 277 | Yates Gas Line | 11/24/2008 | 11/24/2008 | 17,695.65 | | | 17,695.65 | 5,368.90 | 708.00 | | 6,076.90 |
| 288 | Carpet/Vinyl - Admin Bl | 1/1/2009 | 1/1/2009 | 53,826.21 | | | 53,826.21 | 40,372.31 | 5,383.00 | | 45,755.31 |
| 256 | Communications - Ross S | 2/18/2009 | 2/18/2009 | 10,340.00 | | | 10,340.00 | 5,052.78 | 689.00 | | 5,741.78 |
| 257 | Communications - Yates | 2/18/2009 | 2/18/2009 | 57,716.63 | | | 57,716.63 | 28,218.59 | 3,848.00 | | 32,066.59 |
| 266 | Propane Storage Building | 2/25/2009 | 2/25/2009 | 16,200.00 | | | 16,200.00 | 2,376.00 | 324.00 | | 2,700.00 |

000 - SD Science & Technology Authority

| Sys ID | Description | Acquire | In Service | Beginning | Additions | Retired | Ending | Beginning | YTD 6/30/2017 | Retired | Ending |
|--------------------|---------------------------|------------|------------|--------------|-----------|---------|--------------|--------------|---------------|---------|--------------|
| 160 - Improvements | | | | | | | | | | | |
| 270 | Ross Headframe Crusher | 3/1/2009 | 3/1/2009 | 26,409.12 | | | 26,409.12 | 3,872.06 | 528.00 | | 4,400.06 |
| 278 | Yates Headframe/Crusher | 3/1/2009 | 3/1/2009 | 33,519.74 | | | 33,519.74 | 4,913.46 | 670.00 | | 5,583.46 |
| 280 | Yates Safety/Dry Building | 3/1/2009 | 3/1/2009 | 52,177.41 | | | 52,177.41 | 7,655.85 | 1,044.00 | | 8,699.85 |
| 260 | IT Room Electrical/Instal | 3/4/2009 | 3/4/2009 | 41,618.32 | | | 41,618.32 | 15,260.64 | 2,081.00 | | 17,341.64 |
| 279 | Yates Hoist Building | 4/14/2009 | 4/14/2009 | 159,110.28 | | | 159,110.28 | 23,069.55 | 3,182.00 | | 26,251.55 |
| 272 | Ross Pump System | 6/12/2009 | 6/12/2009 | 963,663.60 | | | 963,663.60 | 273,041.00 | 38,547.00 | | 311,588.00 |
| 258 | Fiber Optic Network Syst | 6/30/2009 | 6/30/2009 | 17,541.98 | | | 17,541.98 | 6,139.00 | 877.00 | | 7,016.00 |
| 262 | Power Distribution | 6/30/2009 | 6/30/2009 | 783,887.52 | | | 783,887.52 | 109,746.00 | 15,678.00 | | 125,424.00 |
| 268 | Ross Dry Building | 6/30/2009 | 6/30/2009 | 63,368.30 | | | 63,368.30 | 8,869.00 | 1,267.00 | | 10,136.00 |
| 273 | Ross Shaft | 6/30/2009 | 6/30/2009 | 9,773,260.40 | | | 9,773,260.40 | 1,368,255.00 | 195,465.00 | | 1,563,720.00 |
| 274 | Ross Substation | 6/30/2009 | 6/30/2009 | 277,760.27 | | | 277,760.27 | 38,885.00 | 5,555.00 | | 44,440.00 |
| 276 | WWTP Improvements | 6/30/2009 | 6/30/2009 | 660,400.84 | | | 660,400.84 | 92,456.00 | 13,208.00 | | 105,664.00 |
| 281 | Yates Shaft | 6/30/2009 | 6/30/2009 | 4,694,581.28 | | | 4,694,581.28 | 657,244.00 | 93,892.00 | | 751,136.00 |
| 287 | Admin Bldg Improvemen | 6/30/2009 | 6/30/2009 | 382,643.40 | | | 382,643.40 | 53,571.00 | 7,653.00 | | 61,224.00 |
| 407 | Ross Substation Upgrade | 3/1/2010 | 3/1/2010 | 79,000.94 | | | 79,000.94 | 10,007.00 | 1,580.00 | | 11,587.00 |
| 409 | Yates Shaft | 4/1/2010 | 4/1/2010 | 2,185,614.49 | | | 2,185,614.49 | 273,200.00 | 43,712.00 | | 316,912.00 |
| 402 | LUX Surface Lab | 5/1/2010 | 5/1/2010 | 1,563,830.79 | | | 1,563,830.79 | 192,875.00 | 31,277.00 | | 224,152.00 |
| 403 | Oro Hondo Substation Uj | 5/15/2010 | 5/15/2010 | 85,015.90 | | | 85,015.90 | 10,483.00 | 1,700.00 | | 12,183.00 |
| 404 | Pole Frame Building | 6/1/2010 | 6/1/2010 | 14,183.70 | | | 14,183.70 | 1,728.00 | 284.00 | | 2,012.00 |
| 408 | Yates Fencing | 6/15/2010 | 6/15/2010 | 10,469.70 | | | 10,469.70 | 3,182.00 | 523.00 | | 3,705.00 |
| 401 | Fiber Optic Network Syst | 6/30/2010 | 6/30/2010 | 19,495.55 | | | 19,495.55 | 5,850.00 | 975.00 | | 6,825.00 |
| 405 | Power Distribution Upgr | 6/30/2010 | 6/30/2010 | 341,565.29 | | | 341,565.29 | 40,986.00 | 6,831.00 | | 47,817.00 |
| 406 | Ross Pumping System | 6/30/2010 | 6/30/2010 | 159,652.84 | | | 159,652.84 | 38,316.00 | 6,386.00 | | 44,702.00 |
| 447 | Yates Parking Lot Resurf | 9/24/2010 | 9/24/2010 | 259,641.41 | | | 259,641.41 | 149,293.00 | 25,964.00 | | 175,257.00 |
| 445 | Majorana Shotcreting Imj | 10/15/2010 | 10/15/2010 | 268,602.24 | | | 268,602.24 | 51,480.00 | 8,953.00 | | 60,433.00 |
| 428 | Ross Dry Renovations | 10/30/2010 | 10/30/2010 | 243,726.84 | | | 243,726.84 | 27,625.00 | 4,875.00 | | 32,500.00 |
| 431 | Yates E&O Dry Renovati | 11/30/2010 | 11/30/2010 | 214,711.49 | | | 214,711.49 | 23,975.00 | 4,294.00 | | 28,269.00 |
| 434 | Communications Improv | 6/30/2011 | 6/30/2011 | 89,807.33 | | | 89,807.33 | 29,935.00 | 5,987.00 | | 35,922.00 |
| 435 | Power Distribution Impro | 6/30/2011 | 6/30/2011 | 108,274.04 | | | 108,274.04 | 10,825.00 | 2,165.00 | | 12,990.00 |
| 436 | Fiber Optic Network Syst | 6/30/2011 | 6/30/2011 | 24,228.00 | | | 24,228.00 | 6,055.00 | 1,211.00 | | 7,266.00 |
| 437 | Ross Pump System Imprc | 6/30/2011 | 6/30/2011 | 17,311.87 | | | 17,311.87 | 3,460.00 | 692.00 | | 4,152.00 |
| 443 | Davis Shotcreting Improv | 6/30/2011 | 7/1/2011 | 857,538.24 | | | 857,538.24 | 142,925.00 | 28,585.00 | | 171,510.00 |
| 481 | Improvements to Yates R | 5/1/2012 | 5/1/2012 | 42,785.45 | | | 42,785.45 | 3,567.00 | 856.00 | | 4,423.00 |
| 510 | Davis Campus Laborator | 11/30/2012 | 11/30/2012 | 8,453,584.87 | | | 8,453,584.87 | 1,009,733.00 | 281,786.00 | | 1,291,519.00 |
| 527 | Ross Gas Line | 1/14/2013 | 1/14/2013 | 15,873.11 | | | 15,873.11 | 2,222.00 | 635.00 | | 2,857.00 |

| 000 - SD Science & Technology Authority | | | | | | | | | | |
|---|------------|------------|---------------|------------|---------|---------------|--------------|---------------|---------|--------------|
| Sys ID Description | Acquire | In Service | Beginning | Additions | Retired | Ending | Beginning | YTD 6/30/2017 | Retired | Ending |
| 160 - Improvements | | | | | | | | | | |
| 521 4850 Refuge Area | 2/1/2013 | 2/1/2013 | 175,941.14 | | | 175,941.14 | 30,056.00 | 8,797.00 | | 38,853.00 |
| 642 Ross Campus Shotcrete F | 7/1/2015 | 7/1/2015 | 419,793.13 | | | 419,793.13 | 13,993.00 | 13,993.00 | | 27,986.00 |
| 643 Ross Campus Laboratory | 9/9/2015 | 9/9/2015 | 2,541,235.84 | | | 2,541,235.84 | 70,590.00 | 84,708.00 | | 155,298.00 |
| 644 Ross Water Suppression : | 2/8/2016 | 2/8/2016 | 232,972.47 | | | 232,972.47 | 3,883.00 | 9,319.00 | | 13,202.00 |
| 684 Thermal Insulation Davis | 1/30/2017 | 1/30/2017 | | 45,636.90 | | 45,636.90 | | 1,902.00 | | 1,902.00 |
| | | | 37,006,541.97 | 45,636.90 | 0.00 | 37,052,178.87 | 5,028,570.40 | 979,874.00 | 0.00 | 6,008,444.40 |
| 170 - Improvements in Progress | | | | | | | | | | |
| 477 Improvements in Progress | 6/30/2012 | 6/30/2012 | 934,406.24 | | | 934,406.24 | | | | 0.00 |
| 529 Improvement in Progress | 6/30/2013 | 6/30/2013 | 1,635,423.51 | | | 1,635,423.51 | | | | 0.00 |
| 535 Ross Shaft Labor/SCC/El | 6/30/2013 | 6/30/2013 | 1,096,843.28 | | | 1,096,843.28 | | | | 0.00 |
| 557 Ross Shaft Rehab FY14 | 6/30/2014 | 6/30/2014 | 3,873,268.01 | | | 3,873,268.01 | | | | 0.00 |
| 561 CASPAR Experiment De | 6/30/2014 | 6/30/2014 | 30,234.06 | | | 30,234.06 | | | | 0.00 |
| 563 Ross Rehab FY14 SCC/L | 6/30/2014 | 6/30/2014 | 1,216,243.78 | | | 1,216,243.78 | | | | 0.00 |
| 604 Ross Shaft Rehab FY201 | 6/30/2015 | 6/30/2015 | 6,331,306.42 | | | 6,331,306.42 | | | | 0.00 |
| 608 CASPAR Experiment De | 6/30/2015 | 6/30/2015 | 668,419.00 | | | 668,419.00 | | | | 0.00 |
| 648 Ross Rehab Rehab FY16 | 6/30/2016 | 6/30/2016 | 1,141,668.38 | | | 1,141,668.38 | | | | 0.00 |
| 649 Ross Rehab FY16 Labor/ | 6/30/2016 | 6/30/2016 | 1,436,075.93 | | | 1,436,075.93 | | | | 0.00 |
| 650 LZ Facility Upgrades | 6/30/2016 | 6/30/2016 | 367,553.68 | | | 367,553.68 | | | | 0.00 |
| 652 CASPAR Experiment De | 6/30/2016 | 6/30/2016 | 139,821.86 | | | 139,821.86 | | | | 0.00 |
| 675 CASPAR Exp.Dev. | 6/30/2017 | 6/30/2017 | | 76,663.98 | | 76,663.98 | | | | 0.00 |
| 682 Surface Lab Facility Upg | 6/30/2017 | 6/30/2017 | | 339,463.96 | | 339,463.96 | | | | 0.00 |
| 683 Radon Removal Bldg. In | 6/30/2017 | 6/30/2017 | | 483,682.15 | | 483,682.15 | | | | 0.00 |
| 685 Ellison Bldg.Asbestos Ab | 6/30/2017 | 6/30/2017 | | 26,379.25 | | 26,379.25 | | | | 0.00 |
| | | | 18,871,264.15 | 926,189.34 | 0.00 | 19,797,453.49 | 0.00 | 0.00 | 0.00 | 0.00 |
| 180 - Infrastructure | | | | | | | | | | |
| 294 Road Gravel WWTP East | 7/1/2008 | 7/1/2008 | 48,846.60 | | | 48,846.60 | 9,768.17 | 1,221.00 | | 10,989.17 |
| 296 Road Gravel Yates Hillside | 7/1/2008 | 7/1/2008 | 5,159.00 | | | 5,159.00 | 1,031.98 | 129.00 | | 1,160.98 |
| 298 Sewer Line System | 7/1/2008 | 7/1/2008 | 14,850.00 | | | 14,850.00 | 4,752.00 | 594.00 | | 5,346.00 |
| 300 Water Line System (Historic) | 7/1/2008 | 7/1/2008 | 38,150.00 | | | 38,150.00 | 12,208.00 | 1,526.00 | | 13,734.00 |
| 301 Water Line System (Other) | 7/1/2008 | 7/1/2008 | 25,675.00 | | | 25,675.00 | 8,216.00 | 1,027.00 | | 9,243.00 |
| 292 Concrete Cooling Basins | 8/1/2008 | 8/1/2008 | 25,000.00 | | | 25,000.00 | 3,958.33 | 500.00 | | 4,458.33 |
| 293 Concrete Vault System | 8/1/2008 | 8/1/2008 | 25,000.00 | | | 25,000.00 | 3,958.33 | 500.00 | | 4,458.33 |
| 290 Mill Reservoir | 10/30/2008 | 10/30/2008 | 117,540.85 | | | 117,540.85 | 18,024.21 | 2,351.00 | | 20,375.21 |
| 297 Sewer Line - Backwash Tank | 11/1/2008 | 11/1/2008 | 155,156.08 | | | 155,156.08 | 47,579.50 | 6,206.00 | | 53,785.50 |
| 291 Clarifier - WWTP | 11/25/2008 | 11/25/2008 | 117,245.74 | | | 117,245.74 | 17,782.87 | 2,345.00 | | 20,127.87 |

Cost of Fixed AssetsAccumulated Depreciation

000 - SD Science & Technology Authority

| Sys ID Description | Acquire | In Service | Beginning | Additions | Retired | Ending | Beginning | YTD 6/30/2017 | Retired | Ending |
|--------------------------------|------------|------------|---------------|------------|---------|---------------|------------|---------------|---------|------------|
| 180 - Infrastructure | | | | | | | | | | |
| 414 Grizzly Gulch Decant Pip | 1/1/2011 | 1/1/2011 | 1,060,808.89 | | | 1,060,808.89 | 116,688.00 | 21,216.00 | | 137,904.00 |
| 415 Ross Potable Water Line | 1/1/2011 | 1/1/2011 | 24,810.00 | | | 24,810.00 | 5,456.00 | 992.00 | | 6,448.00 |
| 655 Water Inflow Pipe System | 1/3/2017 | 1/3/2017 | | 241,210.06 | | 241,210.06 | | 4,824.00 | | 4,824.00 |
| 665 Water Inflow Pipe Fusion | 3/15/2017 | 3/15/2017 | | 20,459.22 | | 20,459.22 | | 273.00 | | 273.00 |
| 673 Ellison Gravel Road | 6/12/2017 | 6/12/2017 | | 25,400.25 | | 25,400.25 | | 106.00 | | 106.00 |
| 674 Ellison Paved Road | 6/12/2017 | 6/12/2017 | | 13,550.65 | | 13,550.65 | | 28.00 | | 28.00 |
| | | | 1,658,242.16 | 300,620.18 | 0.00 | 1,958,862.34 | 249,423.39 | 43,838.00 | 0.00 | 293,261.39 |
| 190 - Land | | | | | | | | | | |
| 304 Land - Donated by Home | 4/14/2006 | 4/14/2006 | 1,511,000.00 | | | 1,511,000.00 | | | | 0.00 |
| 305 Land - Closing Costs | 1/31/2007 | 1/31/2007 | 13,435.39 | | | 13,435.39 | | | | 0.00 |
| 306 Land - Phase I Enviromen | 6/30/2008 | 6/30/2008 | 4,000.00 | | | 4,000.00 | | | | 0.00 |
| 307 Land - Phase II Site Asse: | 12/23/2008 | 12/23/2008 | 5,602.65 | | | 5,602.65 | | | | 0.00 |
| 603 Ellison Option | 6/30/2015 | 6/30/2015 | 45,260.00 | | | 45,260.00 | | | | 0.00 |
| 672 Ellison Property | 6/12/2017 | 6/12/2017 | | 234,838.10 | | 234,838.10 | | | | 0.00 |
| | | | 1,579,298.04 | 234,838.10 | 0.00 | 1,814,136.14 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200 - Other Non Dep | | | | | | | | | | |
| 309 Archive Materials - Gold | 7/1/2008 | 7/1/2008 | 20,000.00 | | | 20,000.00 | | | | 0.00 |
| 310 Archive Materials | 7/1/2008 | 7/1/2008 | 50,000.00 | | | 50,000.00 | | | | 0.00 |
| | | | 70,000.00 | 0.00 | 0.00 | 70,000.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 210 - Underground | | | | | | | | | | |
| 311 Underground - Closing C | 1/31/2007 | 1/31/2007 | 90,686.99 | | | 90,686.99 | | | | 0.00 |
| 312 Underground | 1/31/2007 | 1/31/2007 | 10,658,650.00 | | | 10,658,650.00 | | | | 0.00 |
| | | | 10,749,336.99 | 0.00 | 0.00 | 10,749,336.99 | 0.00 | 0.00 | 0.00 | 0.00 |
| 220 - Underground Improvements | | | | | | | | | | |
| 410 Improvements - Undergrc | 6/30/2010 | 6/30/2010 | 1,210,109.78 | | | 1,210,109.78 | | | | 0.00 |
| 444 Improvement Majorana E | 10/31/2010 | 10/31/2010 | 159,204.14 | | | 159,204.14 | | | | 0.00 |
| 446 Improvement Hazard Mit | 5/31/2011 | 5/31/2011 | 60,774.93 | | | 60,774.93 | | | | 0.00 |
| 442 Improvements Davis Exca | 6/30/2011 | 7/1/2011 | 4,460,860.74 | | | 4,460,860.74 | | | | 0.00 |
| 479 Improvement to UG Haze | 6/30/2012 | 6/30/2012 | 69,223.43 | | | 69,223.43 | | | | 0.00 |
| 530 Improvements-Haz.Mit.2 | 6/30/2013 | 6/30/2013 | 51,019.29 | | | 51,019.29 | | | | 0.00 |
| 556 Hazard Mitigation Inprov | 6/30/2014 | 6/30/2014 | 294,893.16 | | | 294,893.16 | | | | 0.00 |
| 567 D.Campus Excav.Dehum | 7/22/2014 | 7/22/2014 | 31,530.99 | | | 31,530.99 | | | | 0.00 |
| 602 Hazard Mitigation 2015 | 6/30/2015 | 6/30/2015 | 163,874.47 | | | 163,874.47 | | | | 0.00 |
| 641 Ross Campus Excavation | 7/1/2015 | 7/1/2015 | 329,557.51 | | | 329,557.51 | | | | 0.00 |
| 646 Hazard Mitigation Yates | 6/21/2016 | 6/21/2016 | 187,570.00 | | | 187,570.00 | | | | 0.00 |

Cost of Fixed Assets

Accumulated Depreciation

| 000 - SD Science & Technology Authority | | | | | | | | | | |
|---|-----------|------------|--------------|------------|---------|--------------|-----------|---------------|---------|--------|
| Sys ID Description | Acquire | In Service | Beginning | Additions | Retired | Ending | Beginning | YTD 6/30/2017 | Retired | Ending |
| 220 - Underground Improvements | | | | | | | | | | |
| 664 Haz. Mit. Yates Tunnel | 6/30/2017 | 6/30/2017 | | 169,000.00 | | 169,000.00 | | | | 0.00 |
| | | | 7,018,618.44 | 169,000.00 | 0.00 | 7,187,618.44 | 0.00 | 0.00 | 0.00 | 0.00 |

Cost of Fixed AssetsAccumulated Depreciation

| Combined | Beginning | Additions | Retired | Ending | Beginning | YTD 6/30/2017 | Retired | Ending |
|--------------------------------|---------------|--------------|--------------|---------------|---------------|---------------|--------------|---------------|
| 110 - Automobiles | 86,305.08 | 22,657.45 | 0.00 | 108,962.53 | 64,714.59 | 5,606.00 | 0.00 | 70,320.59 |
| 120 - Building | 7,223,085.46 | 282,000.00 | 0.00 | 7,505,085.46 | 1,607,386.29 | 146,223.00 | 0.00 | 1,753,609.29 |
| 130 - Computer Hardware | 461,416.25 | 79,473.19 | (106,106.25) | 434,783.19 | 384,730.88 | 31,695.08 | (106,104.69) | 310,321.27 |
| 140 - Equipment & Fixtures | 10,368,448.02 | 541,934.94 | (10,817.00) | 10,899,565.96 | 3,655,876.66 | 745,659.00 | (9,647.70) | 4,391,887.96 |
| 150 - Furniture & Fixtures | 74,211.50 | 0.00 | 0.00 | 74,211.50 | 39,260.33 | 4,990.00 | 0.00 | 44,250.33 |
| 160 - Improvements | 37,006,541.97 | 45,636.90 | 0.00 | 37,052,178.87 | 5,028,570.40 | 979,874.00 | 0.00 | 6,008,444.40 |
| 170 - Improvements in Progress | 18,871,264.15 | 926,189.34 | 0.00 | 19,797,453.49 | 0.00 | 0.00 | 0.00 | 0.00 |
| 180 - Infrastructure | 1,658,242.16 | 300,620.18 | 0.00 | 1,958,862.34 | 249,423.39 | 43,838.00 | 0.00 | 293,261.39 |
| 190 - Land | 1,579,298.04 | 234,838.10 | 0.00 | 1,814,136.14 | 0.00 | 0.00 | 0.00 | 0.00 |
| 200 - Other Non Dep | 70,000.00 | 0.00 | 0.00 | 70,000.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 210 - Underground | 10,749,336.99 | 0.00 | 0.00 | 10,749,336.99 | 0.00 | 0.00 | 0.00 | 0.00 |
| 220 - Underground Improvements | 7,018,618.44 | 169,000.00 | 0.00 | 7,187,618.44 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 95,166,768.06 | 2,602,350.10 | (116,923.25) | 97,652,194.91 | 11,029,962.54 | 1,957,885.08 | (115,752.39) | 12,872,095.23 |

PROPERTY MANAGEMENT SYSTEM ASSESSMENT
PROPERTY REPORT CERTIFICATE
PROPERTY REPORT

Subcontract Number: 629720

Black print=
Fermilab #s
Red print=
historical #s

Date: 9/01/2017

| Subcontractor Property Identification Number | Qty | Property Description, Manufacturer Name, Agreement No. | DOE/FRA Property Number | Serial Number | Model Number | Location | Acquisition Date | Condition at purchase | Grams | Unit Cost | Total Cost | Tagged |
|---|-----|--|-------------------------------|---------------|---|--|------------------|--------------------------|-------|--------------|--------------|--------|
| 1 | 1 | Fluke Three Phase Quality Analyzer Meter [PO #3019] | 6761832 130070 | 12990014 | 435 | Director of Facility Infrastructure's office | 2012-03 | 1 | n/a | \$ 5,895.00 | \$ 5,895.00 | Tagged |
| 2 | 1 | Flygt Submersible Power Cable (150' @\$ 38.82/ft.) [PO #2929] | Gold Tag | none | FLY94-21-11 | SDSTA/Yates Shaft 4850L | 2012-02 | 1 | n/a | \$ 5,823.00 | \$ 5,823.00 | |
| 3 | 1 | Allen Bradley Flex Solid State Con-troller [PO #2860] | 6761818 130057 | none | 2752991 | SDSTA/Yates Shaft 4850L | 2012-01 | 1 | n/a | \$ 5,375.00 | \$ 5,375.00 | Tagged |
| 4 | 1 | Dell Equal Logic SAN [PO #2959] | 6761825 130058 | 50DMKS1 | PS4100Xi SCSI | SDSTA Admin Bldg Server Room | 2012-03 | 1 | n/a | \$ 38,950.00 | \$ 38,950.00 | Tagged |
| 5 | 1 | Thern Ceiling Mount Winch [PO #2896] | Gold Tag | 4012-64281 | 4WS6M12 | SDSTA 4850L Yates Station | 2012-05 | 1 | n/a | \$ 6,360.00 | \$ 6,360.00 | Tagged |
| 5 | 1 | Thern Single Speed Control [PO #2896] | Gold Tag | none | 10S7E4 | SDSTA 4850L Yates Station | 2012-05 | 1 | n/a | \$ 1,055.00 | \$ 1,055.00 | Tagged |
| 6 | 1 | Corning 96 Count Figure 8 Fiber Optic Cable (5000' @ \$1.93/ft) [PO #3163] | Gold Tag | none | 096-EUA-T4101D20 | SDSTA/Yates Shaft | 2012-06 | 1 | n/a | \$ 9,650.00 | \$ 9,650.00 | |
| 7 | 1 | Commercial Evolu-tion Series 8" "Pivot Gate" [PO #3524] | Gold Tag | ES810-01007 | CGC-ES810 | SDSTA/Ross | 2012-10 | 1 | n/a | \$ 15,489.50 | \$ 15,489.50 | Tagged |
| 8 | 1 | Flygt Submersible Pump with Agitator 50' Cable (No Control) 30 hp [PO #3699] | Gold Tag | 1280005 | 5100.251A | SDSTA/Ross Shaft 5000L | 2013-01 | 1 | n/a | \$ 20,500.00 | \$ 20,500.00 | Tagged |
| 9 | 1 | R&M 5-ton Electric Chain Hoist [PO #4043] | Gold Tag | 10026149 | LM25-5-015LM12T2C1 | SDSTA 4850L Governor's Corner | 2013-05 | 1 | n/a | \$ 5,133.00 | \$ 5,133.00 | Tagged |
| 10 | 1 | Vigilant VM Panel (REMICA mic & mounting box, Ethernet & NOC Cards, VM Control switches, Duct Detector, 2-RLCD-C Annumicators) [PO #13064] | 6774245 130059 | none | Vigilant VM-RCCM/D (Part #260512) | 4850L Davis Campus Fire Alarm System | 2013-06 | 1 | n/a | \$ 18,333.70 | \$ 18,333.70 | Tagged |

| | | | | | | | | | | | | |
|---------|---|---|--|--|--|-------------------------------------|---------|---|-----|--------------|--------------|--|
| 11 CORR | 1 | Staticon Battery Charger [PO #4138] | Gold Tag | S/N 032961 | MPL36F600M1 | 1700L Yates Station | 2013-07 | 1 | n/a | \$ 5,689.00 | \$ 5,689.00 | Tagged |
| 12 | 1 | Fujikura 70S Fusion Splicer w/Cleaver & Battery Drop (PO #4252) | 6774177 130060 | VG239CX06DPEN4CZ | Stock #AFL FSM-70S/S015591 | Ross Hoist Cyber Tool Room | 2013-07 | 1 | n/a | \$ 15,752.93 | \$ 15,752.93 | Tagged |
| 13 | 1 | Baldor 400 hp, 547 amp Power Module (PO #4321) | Gold Tag | 550210008EF | VSI PF4400-9L | 5 Shaft | 2013-08 | 1 | n/a | \$8,800.00 | \$8,800.00 | Tagged |
| 14 | 1 | Flygt Submersible Pump Model 2670, 27 hp (PO #4310) | 6774160 130061 | 1350012 | Model 2670 | 2600' Yates Pump Station | 2013-08 | 1 | n/a | \$12,556.00 | \$12,556.00 | |
| 15 | 1 | Sullair 185 Portable Air Compressor 2013 SU 185DLQ (PO 4206) | 6774153 130062 | Air Compressor SN 201308070067 John Deere Engine SN PE4024R129152 | Model 49HP/185/B DLQ/JD14 EPA | UG Hazard Mitigation | 2013-08 | 1 | n/a | \$13,507.00 | \$13,507.00 | Tagged |
| 16 | 1 | Fluke OptiFiber Pro OTDR Fiber Testing Tool (PO #4302) | 6777741 130063 | 2298662 | Factory Build to Order | Ross Hoist Cyber Tool Room | 2013-08 | 1 | n/a | \$13,178.88 | \$13,178.88 | Tagged |
| 17 | 1 | Cornell 6H-F16 Frame Mounted Pump/Motor Assembly (PO 4324) | 129953 | Pump/Motor Assembly SN 187888; 100 HP Motor SN A1309122094 | 6H-F16 | SDSTA/YRoss Shaft 2600L | 2013-10 | 1 | n/a | \$20,823.75 | \$20,823.75 | |
| 18 | 1 | Cornell 6H-F16K Spare Pump (PO 4324) | Gold Tag | Pump End only SN 187892 | 6H-F16K | Warehouse (until needed) | 2013-10 | 1 | n/a | \$6,867.90 | \$6,867.90 | Tagged |
| 19 | 1 | Maestro Vigilante AQS Air Quality Station (PO 4326) | Gold Tag | none | VAQS-PF-PF-G002-NR-NR-NR-NR-MB-IM-SP1-SP2-SP3 | Oro Hondo Fan | 2013-11 | 1 | n/a | \$7,175.00 | \$7,175.00 | Tagged |
| 20 | 1 | Wheelift Transporter Model (Auto Guided Daya Bay vehicle - Mod 20) | DOE# 6690569 (GFP) 130064 | none | Model C5280 | Yates Crusher Room | 2014-01 | 4 | n/a | \$919,808.00 | \$919,808.00 | This is LBNL Property not transferred to FNAL. Title will be transferred to SDSTA in April 2018. Please remove FNAL tag 130064 |
| 21 | 1 | Movex Twin Track 66 Track-O-lift, stair climber, remote, sides/backrest (PO 4739) | 6777727 130065 | Serial Number 14011421CA045236-2 | Twin-Track 66 | 4850L Yates Shaft Davis Campus | 2014-02 | 1 | n/a | \$ 25,455.00 | \$25,455.00 | Tagged |
| 22 | 2 | Titan Air Make-Up Units Natural Gas, 50,000 CFM, 3,620,000 BTU [PO 4613] | #1 - 6777703 130066 #2 - 6777710 130067 | Unit #1 - SN 15028 Unit #2 - SN 15029 | Unit #1 - Model TA-133 NG HLH DA Unit #2 - Model TA-133 NG HRH DA | #1 - Ross Shaft #2 - Yates Shaft | 2014-02 | 1 | n/a | \$ 31,215.00 | \$ 62,430.00 | Tagged |
| 23 | 1 | CAF-960-5 Blow-Through/Wall Supply-Air Package Fan (PO 4833) | Gold Tag | Serial Number E3792 | Model CAF-960-5 Filtered Supply Fan | Temporary Clean Room - Ross 4850L | 2014-03 | 1 | n/a | \$ 6,995.00 | \$ 6,995.00 | Tagged |
| 24 | 1 | Big Blue 300 Pro Kubota CC/CV (1800 RPM) Welder (PO 4981) | 6777659 130068 | Serial Number ME160009E | MIL907521 | Hazard Mitigation Crew 4850L | 2014-05 | 1 | n/a | \$ 10,445.00 | \$ 10,445.00 | Tagged |

| | | | | | | | | | | | | |
|-----|---|--|-------------------------------|-----------------------------|-------------------------------|-------------------------|---------|---|-----|---------------|---------------|-----------------------|
| 25 | 2 | Warren Battery mtd in Std Trojan Battery Box (PO 5495) | Gold Tag | Batteries: SN 73362 & 73363 | 36C 72V 510AH | UG locations | 2014-10 | 1 | n/a | \$ 9,583.00 | \$ 19,166.00 | Tagged |
| 26 | 1 | Bobcat SB200 Snowblower X 78 attachment (PO 5836) | Gold Tag | 713004771 | SB200 | Surface - WWTP | 2015-02 | 1 | n/a | \$ 6,133.00 | \$ 6,133.00 | Tagged |
| 27 | 1 | Benson Medical CCA-200mini Plus System Audiometer | Gold Tag | 68205 | CCA-200mini (Item #500303-13) | E&O Bldg. | 2015-04 | 1 | n/a | \$ 5,990.00 | \$ 5,990.00 | Tagged |
| 28 | 3 | Fisher 2" 300RF ETCVIII Industrial Water Boxes | Gold Tag | 15933881 | ET-771-75297 | Yates Shaft | 2015-12 | 1 | n/a | \$ 6,376.00 | \$ 19,128.00 | |
| 29 | 1 | 2016 John Deere 324K loader w/bucket, chains, spare | 6804034 130069 | 1LU324KXLZB040867 | 324K | Surface | 2016-02 | 1 | n/a | \$ 104,791.61 | \$ 104,791.61 | Tagged |
| 30 | 1 | 2016 DYMAY Inc Forks-48 for JD 324K loader | Gold Tag | WG52706 | DYMAY 48 | Surface | 2016-02 | 1 | n/a | \$ 5,365.39 | \$ 5,365.39 | Tagged |
| 30a | 1 | Block heater for #30 | n/a | 8800239723 | Powerplan B/F | Surface | 2016-03 | 1 | n/a | \$ 754.96 | \$ 754.96 | Tagged |
| 31 | 1 | 5 ton R&M ECH 20 ft Lift | Gold Tag | 11233881 | LK25C042500 | Yates M-G Set room | 2016-04 | 1 | n/a | \$ 5,300.00 | \$ 5,300.00 | Tagged |
| 32 | 1 | Flygt submersible pump, 58 HP w/50' cord | 130056 (not tagged-submerged) | 1540033 | BS2201.011 Version HT-244 | Yates 4850L sump | 2016-11 | 1 | n/a | \$ 24,651.00 | \$ 24,651.00 | new (FRA subk 629720) |
| 33 | 1 | Septic System | 130071 | | | Yates 4850L | 2017-08 | 1 | n/a | \$ 19,664.85 | \$ 19,664.85 | Not Tagged Yet |
| 34 | 3 | Bosch Buderus Boiler SSB 512 Floor mount | 130072, 130073, 130074 | | | Ross Hoist Building | 2017-08 | 1 | n/a | \$ 45,915.00 | \$ 45,915.00 | Not Tagged Yet |
| 35 | 1 | Flygt submersible pump, 58 HP 460 V 4" | 130075 | 1740031 | 2201.012-0006 | Yates Shaft Replacement | 2017-09 | 1 | n/a | \$ 25,390.80 | \$ 25,390.80 | Not Tagged Yet |

At the close of an agreement, ALL Government Furnished Property (GFP) and Subcontractor Acquired Property (SAP) including materials must be accounted for regardless of the value of the property.

Residual Materials: Remaining property that may be incorporated into or attached to a property item. It includes, but is not limited to precious metals, raw or processed materials, parts, components, assemblies or supplies

| CONDITION CODES | | |
|--|-------------------|---|
| For the purpose of indicating Condition of Property, please use the following codes: | | |
| Condition Code | Brief Description | Expanded Definition |
| 1 | Excellent | Property which is in new condition or unused condition and can be used immediately without modifications or repairs. |
| 4 | Usable | Property which shows some wear, but can be used without significant repair. |
| 7 | Repairable | Property which is unusable in its current condition but can be economically repaired. |
| X | Salvage | Property which has value in excess of its basic material content but repair or rehabilitation is impractical and/or uneconomical. |
| S | Scrap | Property which has no value except for its basic material content. |

PER DIEM PAYMENTS MADE TO BOARD MEMBERS IN FY 2017

| <u>Date</u> | <u>Name</u> | <u>Purpose</u> | <u>Amount</u> |
|-------------|--------------------|---|---------------|
| 07/15/16 | Casey Peterson | Participated in UG tour with Under Secretary Orr | \$75.00 |
| 09/09/16 | Casey Peterson | Personnel discussions last week in Aug | \$75.00 |
| 09/09/16 | Pat Lebrun | Audit Committee Teleconference | \$75.00 |
| 09/09/16 | Paul Christen | Audit Committee Teleconference | \$75.00 |
| 09/23/16 | Casey Peterson | BoD Meeting | \$75.00 |
| 09/23/16 | Dana Dykhouse | BoD Meeting | \$75.00 |
| 09/23/16 | Pat Lebrun | BoD Meeting | \$75.00 |
| 09/23/16 | Paul Christen | BoD Meeting | \$75.00 |
| 09/23/16 | Robert Wilson | BoD Meeting | \$75.00 |
| 10/21/16 | Dr. Ani Aprahamian | Telephonic BoD Mtg | \$75.00 |
| 10/21/16 | Casey Peterson | Telephonic BoD Mtg | \$75.00 |
| 10/21/16 | Dana Dykhouse | Telephonic BoD Mtg | \$75.00 |
| 10/21/16 | Paul Christen | Telephonic BoD Mtg | \$75.00 |
| 10/21/16 | Robert Wilson | Telephonic BoD Mtg | \$75.00 |
| 12/02/16 | Pat Lebrun | Audit Committee Teleconference | \$75.00 |
| 12/02/16 | Paul Christen | Audit Committee Teleconference | \$75.00 |
| 12/16/16 | Casey Peterson | BoD Meeting | \$75.00 |
| 12/16/16 | Dana Dykhouse | BoD Meeting | \$75.00 |
| 12/16/16 | Pat Lebrun | BoD Meeting | \$75.00 |
| 12/16/16 | Paul Christen | BoD Meeting | \$75.00 |
| 12/16/16 | Robert Wilson | BoD Meeting | \$75.00 |
| 01/27/17 | Casey Peterson | Discussions with executive director in Jan | \$75.00 |
| 02/10/17 | Casey Peterson | BAC discussion with Tony V. in Pierre, travel day | \$150.00 |
| 02/24/17 | Casey Peterson | Telephonic BoD Mtg | \$75.00 |
| 02/24/17 | Pat Lebrun | Telephonic BoD Mtg | \$75.00 |
| 02/24/17 | Paul Christen | Telephonic BoD Mtg | \$75.00 |
| 02/24/17 | Robert Wilson | Telephonic BoD Mtg | \$75.00 |
| 03/24/17 | Casey Peterson | BoD Meeting | \$75.00 |
| 03/24/17 | Dana Dykhouse | BoD Meeting, travel day | \$150.00 |
| 03/24/17 | Pat Lebrun | BoD Mtg, joined by phone | \$75.00 |
| 03/24/17 | Paul Christen | BoD Mtg, joined by phone | \$75.00 |
| 05/05/17 | Casey Peterson | Telephonic BoD Mtg, budget discussions with Headley | \$150.00 |
| 05/05/17 | Dana Dykhouse | Telephonic BoD Mtg | \$75.00 |
| 05/05/17 | Dr. Ani Aprahamian | Telephonic BoD Mtg | \$75.00 |
| 05/05/17 | Pat Lebrun | Telephonic BoD Mtg | \$75.00 |
| 05/05/17 | Paul Christen | Telephonic BoD Mtg | \$75.00 |
| 05/05/17 | Robert Wilson | Telephonic BoD Mtg | \$75.00 |
| 05/19/17 | Dana Dykhouse | Nominating Committee met | \$75.00 |
| 05/19/17 | Dr. Ani Aprahamian | Nominating Committee met | \$75.00 |
| 06/30/17 | Casey Peterson | BoD Mtg, Special Telephoince BoD Mtg, discussions w/ TME/MH | \$225.00 |
| 06/30/17 | Dana Dykhouse | BoD Mtg, joined by phone | \$75.00 |
| 06/30/17 | Pat Lebrun | BoD Mtg, Special Telephoince BoD Mtg | \$150.00 |

PER DIEM PAYMENTS MADE TO BOARD MEMBERS IN FY 2017

| <u>Date</u> | <u>Name</u> | <u>Purpose</u> | <u>Amount</u> |
|--------------|---------------|---|-------------------|
| 06/30/17 | Paul Christen | BoD Mtg, travel day; Special Telephoince BoD Mtg | \$225.00 |
| 06/30/17 | Robert Wilson | BoD Mtg, joined by phone, Special Telephoince BoD Mtg | \$150.00 |
| Total | | | \$3,975.00 |

Ani Aprahamian

| | | | |
|-------------------------|--------------------|--------------------------|-----------------|
| 10/21/16 | Dr. Ani Aprahamian | Telephonic BoD Mtg | \$75.00 |
| 05/05/17 | Dr. Ani Aprahamian | Telephonic Board Mtg | \$75.00 |
| 05/19/17 | Dr. Ani Aprahamian | Nominating Committee met | \$75.00 |
| Aprahamian Total | | | \$225.00 |

Paul Christen

| | | | |
|-----------------------|---------------|--|-----------------|
| 09/09/16 | Paul Christen | Audit Committee Teleconference | \$75.00 |
| 09/23/16 | Paul Christen | BoD Meeting | \$75.00 |
| 10/21/16 | Paul Christen | Telephonic BoD Mtg | \$75.00 |
| 12/02/16 | Paul Christen | Audit Committee Teleconference | \$75.00 |
| 12/16/16 | Paul Christen | BoD Meeting | \$75.00 |
| 02/24/17 | Paul Christen | Telephonic BoD Mtg | \$75.00 |
| 03/24/17 | Paul Christen | BoD Mtg, joined by phone | \$75.00 |
| 05/05/17 | Paul Christen | Telephonic BoD Mtg | \$75.00 |
| 06/30/17 | Paul Christen | BoD Mtg, travel day; Special Telephoince BoD Mtg | \$225.00 |
| Christen Total | | | \$825.00 |

DANA DYKHOUSE

| | | | |
|----------------------|--------------|---------------------------------------|-----------------|
| 09/23/16 | Dana Dykhous | BoD Meeting | \$75.00 |
| 10/21/16 | Dana Dykhous | Telephonic BoD Mtg | \$75.00 |
| 12/16/16 | Dana Dykhous | BoD Meeting | \$75.00 |
| 03/24/17 | Dana Dykhous | Regular Board Meeting plus travel day | \$150.00 |
| 05/05/17 | Dana Dykhous | Telephonic Board Mtg | \$75.00 |
| 05/19/17 | Dana Dykhous | Nominating Committee met | \$75.00 |
| 06/30/17 | Dana Dykhous | BoD Mtg, joined by phone | \$75.00 |
| Dykhous Total | | | \$600.00 |

PAT LEBRUN

| | | | |
|----------|------------|--------------------------------|---------|
| 09/09/16 | Pat Lebrun | Audit Committee Teleconference | \$75.00 |
| 09/23/16 | Pat Lebrun | BoD Meeting | \$75.00 |
| 12/02/16 | Pat Lebrun | Audit Committee Teleconference | \$75.00 |
| 12/16/16 | Pat Lebrun | BoD Meeting | \$75.00 |
| 02/24/17 | Pat Lebrun | Telephonic BoD Mtg | \$75.00 |

PER DIEM PAYMENTS MADE TO BOARD MEMBERS IN FY 2017

| <u>Date</u> | <u>Name</u> | <u>Purpose</u> | <u>Amount</u> |
|-------------|-------------|--------------------------------------|-----------------|
| 03/24/17 | Pat Lebrun | BoD Mtg, joined by phone | \$75.00 |
| 05/05/17 | Pat Lebrun | Telephonic BoD Mtg | \$75.00 |
| 06/30/17 | Pat Lebrun | BoD Mtg, Special Telephoince BoD Mtg | \$150.00 |
| | | Lebrun Total | \$675.00 |

CASEY PETERSON

| | | | |
|----------|----------------|---|-------------------|
| 07/15/16 | Casey Peterson | Participated in UG tour with Under Secetary Orr | \$75.00 |
| 09/09/16 | Casey Peterson | Personnel discussions last week in Aug | \$75.00 |
| 09/23/16 | Casey Peterson | BoD Meeting | \$75.00 |
| 10/21/16 | Casey Peterson | Telephonic BoD Mtg | \$75.00 |
| 12/16/16 | Casey Peterson | BoD Meeting | \$75.00 |
| 01/27/17 | Casey Peterson | Discussions with executive director in Jan | \$75.00 |
| 02/10/17 | Casey Peterson | BAC discussion with Tony V. in Pierre, travel day | \$150.00 |
| 02/24/17 | Casey Peterson | Telephonic BoD Mtg | \$75.00 |
| 03/24/17 | Casey Peterson | BoD Meeting | \$75.00 |
| 05/05/17 | Casey Peterson | Telephonic Board Mtg, budget discussions with Headley | \$150.00 |
| 06/30/17 | Casey Peterson | BoD Mtg, Special Telephoinc BoD Mtg, discussions w/ Tim & Mike Headle | \$225.00 |
| | | Peterson Total | \$1,125.00 |

Robert Wilson

| | | | |
|----------|---------------|---|-----------------|
| 09/23/16 | Robert Wilson | BoD Meeting | \$75.00 |
| 10/21/16 | Robert Wilson | Telephonic BoD Mtg | \$75.00 |
| 12/16/16 | Robert Wilson | BoD Meeting | \$75.00 |
| 02/24/17 | Robert Wilson | Telephonic BoD Mtg | \$75.00 |
| 05/05/17 | Robert Wilson | Telephonic BoD Mtg | \$75.00 |
| 06/30/17 | Robert Wilson | BoD Mtg, joined by phone, Special Telephoince BoD Mtg | \$150.00 |
| | | Wilson Total | \$525.00 |

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Executive Director's Report—Mr. Mike Headley

The Executive Director's Report includes the following:

- 8A. SDSTA Quarterly Update—August monthly report attached (financial summaries are also located under Item 7A Financial Statements).
- 8B. Declaration of Surplus Property, attached (informational).
- 8C. Sanford Lab Homestake Visitor Center Update (presentation by Billi Bierle, Executive Director).
- 8D. E&O Update (presentation by E&O Team).

Recommended Action:

Motion to accept the Executive Director's Report as presented.

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August Monthly Report

Submitted by Mike Headley

SDSTA Executive Director

Sanford Underground Research Facility Laboratory Director

September 13, 2017

Science

- Facility highlights: Sanford Lab continues to work with the building management system (BMS) service contractor on the Davis Campus dehumidifier chiller; power issues are suspected and SDSTA electricians plan to implement additional monitoring in September. An audit was performed for surface and underground equipment in preparation for renewing and extending the BMS services contract.
- Interruptions: There were four outages of the main Oro Hondo ventilation fan. In one case a separate lower- capacity fan was brought online, during which time the radon concentrations roughly doubled at the Ross Campus over a 3-day weekend period. The Davis Campus saw no impact.
- A stuck float/valve in the Yates Shaft water system led to water interruptions at 4850L facilities, which affected multiple laboratories. While temperature and relative humidity increased at the Davis Campus due to modified dehumidifier performance, the most significant issues were experienced at the Ross Campus where loss of chiller water resulted in changed energy responses for some CASPAR detectors and corrosion on copper, lead and steel items inside the BHUC cleanroom.

Large Underground Xenon—LUX

- Working closely with SDSTA ESH personnel, two LUX calibration sources—Thorium (Th)-228, Rubidium (Rb)-83—were shipped offsite, and additional sources will be shipped in September.

MAJORANA DEMONSTRATOR—MJD

- Troubleshooting was performed for the liquid nitrogen fill sensors on the shield and glovebox purge dewars. A new cable appears to have fixed problem, and regular automatic fill operations resumed. Safety improvements were made to the metal ramps that allow Liquid Nitrogen (LN) dewars to be placed on mass scales.
- Acid leaching of the new electroforming bath at the Davis Campus that began in early August was successfully completed after approximately three weeks. During the process, acid circulation pumps were operated during periods when MJD personnel were present. In coordination with Sanford Lab, nitric acid waste was transported out of the lab and new copper nuggets were transported into the lab.
- Ross Campus decommissioning continues, including removal of the water purification system and other equipment. SDSTA ESH personnel were consulted regarding disposal of the remaining deionized water.

Low-Background Counting

Black Hills State University Underground Campus—BHUC:

- Failures of two components (a pressure transducer and a valve) were discovered on the nitrogen boiloff purge system that likely contributed to ongoing performance issues. In particular, the ineffective valve would have affected the ability to properly build gas pressure vented from one of the dewars. The valve was tagged out and both items will be replaced.

BHUC Physics Users:

- Assays of primarily LUX and LZ samples continued throughout the month with some interruptions due to noise investigations as outlined below.
- Following the installation and initial testing of the LBNL dual-crystal low-background counter system, electrical performance issues were discovered. Work will continue in September to advance troubleshooting. Separately, SDSTA electricians assisted Lawrence Berkeley National Lab (LBNL) personnel looking into recent sources of electrical noise exhibited across many of the operating detectors. Investigations considered facility power components such as grounding, as well as experimental equipment. A mass flow meter and an associated USB cable were identified as significant sources of electrical noise.
- Iterations on documentation (mechanical design, Experiment Planning Statement and the General Services Agreement) continue for the Alabama/University of South Dakota (USD) “Ge IV” low-

background detector. Preparations are underway for shipping shielding materials. Storage near the Yates headframe is being considered. Installation is now projected for October.

Compact Accelerator System for Performing Astrophysical Research—CASPAR

- Elements of the beamline were disassembled to support the optical alignment of the beamline and accelerator to improve beam transmission. Following the alignment, magnets were re-installed and the accelerator tank was re-filled with insulating gas to resume beam commissioning activities.
- Progress continues on the gas target system, initial testing of which could begin in September.
- SDSTA electricians helped identify the gas target control panel as a source of electrical noise issues on some of the radiation monitors.
- Both NaI and HPGe (electrically-cooled, so no LN) detectors are underground and will be used in gamma-ray background characterization studies starting in September. Also, University of Notre Dame personnel will return to Sanford Lab in September to assist in radiation surveys related to “entry mode”.

LUX-ZEPLIN—LZ

- Detailed commissioning and furnishing of the surface cleanrooms are underway.
- The 100% design updates for underground infrastructure were delivered and a formal review is scheduled for September 19. Work was supported by various recent surveys and laser scans.
- The LBNL LZ safety lead will be on site September 12-13 for coordination.
- An initial discussion was held of plans for systematic gamma-ray measurements of Davis Cavern (including inside water tank) to improve LZ background simulation studies.

Other Current Research Activities

Physics: Representatives from the nEXO double-beta decay experiment will be onsite in September for talks.

Geology:

- SIGMA-V: A driller was selected by the project (LBNL procurement), and final details of the drilling equipment and associated footprint will be added to the Experiment Planning Statement. Discussions are converging on the subcontract for SURF services. To support modeling efforts, some Permeability (k) and Induced Seismicity Management for Energy Technologies (kISMET) core were shipped offsite and personnel investigated some large underground rock that could be sampled. A trip is planned for next month to include training, core access as well as install temperature monitors.
- Rock Melt: With driller equipment demobilized from the property, the project is complete.

Biology:

- South Dakota School of Mines and Technology (SDSM&T) received a \$6M National Science Foundation (NSF) award that involves using microbes collected from Sanford Lab.
- NASA Astrobiology Institute: Researchers returned to sampling sites on the 800L, 2000L, 4100L and 4850L where continuous-flow experiments are located. In addition to maintenance (including changing compression packer components), some media cartridges were removed and new larger-diameter ones added at various holes. Other sampling experiments were removed from the 4100L sites.

Engineering:

- Video Gauge/Monitoring: Personnel performed maintenance, calibration and cleaned lenses; decommissioning is still expected in September.
- Xilinx: Plans are underway to expand testing by three more arrays of chips (adding to the existing two arrays deployed on the 4850L)

Underground Access

Ross Shaft

Ross Shaft crews completed one set (292) in August. Steel set replacement work was on hold for part of the month to review safety aspects of shaft work and roll out new safety programs. Multiple Job Hazard Analyses (JHAs) and Standard Operating Procedures (SOPs) were also reviewed. Various UMC loads were lowered to the 2600L, along with the scheduled maintenance and quality check activities. Crews supported pump room work on various levels.

Yates Shaft

A total of 184 loads were handled through the shaft in August. Top Down Maintenance corrected 184 conditions for the month. Refurbishment activities are taking place below the 2300L in the cage compartments.

Underground Maintenance Crew (UMC)

The UMC continued installing ground support using the Fletcher bolter along the North side of the 4850L West Lab Access Drift, working toward the Ross Shaft direction. Ground support installation in the East Lab Access Drift on the 4850L continues to work toward the Yates Shaft from the No. 4 Winze Wye direction. Crews also assisted with maintenance work at the Ross 2600L pump room and continued removing utilities at the 4850L No. 9 Ledge/No. 11 Ledge locations.

Facility Infrastructure

Davis and Ross Campus Maintenance

The Facility Infrastructure team monitored and assisted with new equipment installation. Quarterly air handling equipment and fire alarm preventive maintenance activities continue with vendors.

Surface Facility Maintenance Building and Grounds

The SDSTA completed all seven (7) day, thirty (30) day, and annual (360) day preventative maintenance activities. Boart drill and jackleg repairs continue. Preparations continue for the No. 5 Shaft 150HP fan change scheduled for early September. In support of recycling efforts, one and a half tons of material were collected and sent to the recycling center. Third quarter storm water inspections were completed. Foundry Building roof replacement continues and is approximately seventy percent complete.

Dewatering

Ross Shaft pump repairs continue replacing degrading portions of the column including installation of the 100-hp pump on the 2600L. Preventative maintenance was performed on pumps and pumping apparatus. Installation of the six-inch Yates sump discharge line continue.

Waste Water Treatment Plant (WWTP)

At the end of August, the water level in the underground pool was at 5,804 feet, which represents a net drop in later level of 17 feet for the month. Near term plans are to try to increase the average pump rate to 800 gallons per minute from the underground. Modifications to the control system to allow specific operating controls from off site are progressing, limiting the number of off-hour call outs; there were two calls in August. The WWTP has not discharged any water to the sanitary sewer for over 424 days. Instead, the water is being recycled through the WWTP. A twelve-inch actuator was installed on the reservoir discharge line to provide better control of water to the WWTP which improves water flow and uses less electric power.

Transportation and Mobile Equipment

The team performed vehicle preventative maintenance actions and repairs to fleet and site vehicles. In addition, the team maintained underground locomotives, support equipment including air compressors, bolter loaders and rail cars. The 2000-hour service on the Fletcher bolter was completed and a hydraulic cylinder attachment point was repaired.

Electrical and Cyber Infrastructure

The team supported the Ross Shaft rehabilitation project with the relocation of power cables in the shaft as the new steel is installed. The team continues to work reviewing and modifying the underground communications infrastructure to ensure each level has voice over IP (VoIP) and FEMCO (i.e. twisted pair) phones at each underground facility level. Fiber optic cables are being extended to the pump room levels to allow for installation of new phones. Worked extensively with Black Hills State and Berkley personnel to identify electrical noise issues with the counters, assisted with identifying suspect components and identifying the problem. Lighting upgrades have been completed to specific areas in the E&O and Administration Buildings.

Engineering

Long-Baseline Neutrino Facility (LBNF) and Deep Underground Neutrino Facility (DUNE)

The final design was developed for a wood guide watering system for the Ross Shaft rehabilitation project. Design has been submitted to the shaft designer for review since it is linked to the final shaft certification.

The shaft designer provided the 95% design for Spill Pocket sets for review. This is a key integration area between SDSTA and Contract Manager/General Contractor (CM/GC) respective scopes of work.

On August 29-30, Sanford Lab hosted an LBNF Kickoff meeting with the recently awarded CM/GC Kiewit/Alberici Joint Venture (KAJV). The meeting included initial discussions on the state of the project, safety and quality expectations, and other related topics plus a full day of project specific site tours.

The 30% pipe conveyor Preliminary Design was received from North Alabama Fabricating Company (NAFCO) and is under review by LBNF and SDSTA staff.

Based on an analysis of recent trends in outages of the Oro Hondo Fan due to an aging variable frequency drive, a request for proposals will be provided to industry in September for a replacement of the drive and refurbishment of the motor.

LUX-ZEPLIN (LZ)

A key production readiness review (PRR) was conducted for Level 3 WBS 1.3.1, Nitrogen Distribution. There were three recommendations to resolve before proceeding with the next step of procuring the cryo-cooler, vacuum jacketed piping and miscellaneous equipment needed for liquid and gas distribution.

Plans for testing the detector thermosyphon evaporator were developed and presented at the LZ Technical Board meeting. There was concurrence to proceed with this test. A Baseline Change Proposal is being drafted to add cost and schedule tasks to the project plan.

A review of the 50% design submittal for the Davis Lab Renovation was conducted with the collaboration and designer, Leo A. Daley. The design update is on track for completion in September.

A VESDA smoke detector was installed and tested in the Foundry Building. The area covered by this system will support storage and assembly operations for the new detector.

Working with the SDSM&T, additional sealing was performed on the reduced radon cleanroom in the Surface Lab, pressure gauges installed and particle sampling plates deployed as final commissioning and standup of the cleanroom system are completed.

Normet, a shotcrete supplier, visited the LZ xenon storage bay on the 4850L to determine whether their product has application for the project. Water seepage on the xenon storage system is a concern and this product, which is applied much thinner than typical shotcrete, is a possible solution.

SURF Infrastructure

Authorization was received from FRA to move forward with a contract to replace the leased deep pool motor and pump system with an SDSTA-owned system. The lease expires at the end of the year and significant annual cost avoidance is anticipated based on projected future leasing costs.

Environment, Safety and Health

Environmental Communication with Outside Agencies

The South Dakota Department of Environment and Natural Resources (SD-DENR) was contacted concerning the status of the pending National Pollution Discharge Elimination System (NPDES) Permit renewal. There has been no progress. Photos of the Foundry roof replacement were sent to the South Dakota Historic Preservation Office (SHPO); overall, SHPO was pleased with the new appearance of the roof.

Environmental Compliance

Water—Waste Water Discharge Summary through September 3, 2017:

- Total water discharged through outfall 001 since June 5, 2008: 6,097,508,637 gallons
- Total Underground water treated since June 5, 2008: 3,613,565,695 gallons
- Total Tailing water treated since June 5, 2008: 2,655,337,362 gallons
- Total water discharged to sewer since June 5, 2008: 105,071,348 gallons

The July Discharge Monitoring Report (DMR) was prepared, signed and loaded into Net DMR.

In August, the 3rd quarter storm water pollution prevention inspection was completed. Also, the 2nd quarter storm water inspection repairs were completed.

Solid Waste

Various wastes/recycle items have been collected, sorted, and taken to the recycling center. Solid and hazardous waste were collected from the Old High Building and the Ross paint storage area.

LBNF/DUNE/LZ/CASPAR/MJD

A JHA was developed in concert with MJD for nitric acid etching and rinsing of experimental materials.

Environmental Support Tasks

Ellison asbestos abatement continued in August using SDSTA funding. The work completed includes removal of asbestos from the Boiler Building, Construction/Drill Steel Building and exterior steam pipelines.

Health and Safety Summary



TRC (Total Recordable Case) = more than first aid treatment was given.

DART (Days Away Restricted Transferred) = more than first aid treatment was given AND restrictions were job-limiting or the employee could not work (subset of a TRC). *Rates are subject to change

August 2017 DARTS/TRC:

- July 13: Upgrade to DART/TRC from First Aid: Ross Infrastructure Technician injured knee

August 2017 First Aid Cases:

- Aug 22: Ross Infrastructure Technician injured forearm and hand

August 2017 Category 1 or 2 Events:

- No events to report

August 2017 Category 3 Events:

- No events to report

August 2017 Items of Interest:

1. Held monthly Safety Committee Meeting and conducted Safety Sweep
2. Completed W-65 quarterly weigh; updated W-65 inventory list of misplaced/missing units
3. Conducted Powder and Cap monthly inventory on 4850L
4. Created Toolbox talk on Incident Reporting and Notification; delivered to crews
5. Conducted Annual Refresher Training on the topic of JHA and Work Planning
6. Conducted Emergency Response Training
7. Performed hearing tests and hearing protection attenuation for HCP members
8. Hosted Fermilab personnel and provided surface and underground tours
9. Reviewed and updated card access permissions for personnel and researchers
10. Conducted monthly Drager gas tester inspections
11. Reviewed current weed spraying areas and identified new sites for weed control (Thistle)

Education and Outreach (E&O)

The Great American Eclipse—August 21, 2017

The solar eclipse on August 21—the biggest celestial event for years to come—provided an opportunity to engage even non-geeks in science.

- E&O Team members were involved in helping the Communications Department plan a public outreach event at the Sanford Lab Homestake Visitor Center (SLHVC).
- Cultural Diversity Coordinator KC Russell participated in a special eclipse viewing party at the sacred Lakota site of Bear Butte.
- The NASA South Dakota Solar Eclipse Balloon team, led by Deputy Director of E&O Dr. Peggy Norris was in Alliance, NE on eclipse day for the culminating event of their project, to livestream video the shadow of the moon on the earth during totality. Although technical details prevented the actual livestreaming, the high definition video collected from 65,000 feet is awesome, and the project was a tremendous success. A list of team members and some links to video taken by the South Dakota team are given at the end of this report.
- As part of eclipse festivities in western Nebraska, Peggy gave presentations to approximately 150 people in Alliance and 40 in Mitchell, SD. Participating SDSM&T students also had a table at a public event in Gering, NE.
- On Eclipse Day in Alliance, the balloon team was joined by faculty and students from the SDSM&T Physics Department, approximately a dozen Alliance High School students and many passers-by. In addition, Pine Ridge School brought eight buses of high school students to witness totality.
- The balloon team garnered a lot of media attention; the SDSM&T Public Relations team was a huge help in coordinating the media for the team, including eclipse day. A list of media reports is given at the end of this report.

Cultural Activities

KC visited schools and tribal headquarters in Sisseton, Old Agency, Langford, Ipswich, Aberdeen and Cheyenne River in August.

K-12 Education and Outreach

The team is working on a plan to engage school districts within South Dakota that have not yet participated in our three major program components: curriculum units, classroom presentation and field trips.

Curriculum units. Requests for use of the curriculum units have been rolling in as schools start across the state. *Waterworks* was in use in Long Valley School starting in late August. *Between a Rock and a Dark Place* and *Exploring the Unseen* have been shipped to schools in Pierre and Sioux Falls, respectively, for use beginning next week.

The E&O team is preparing two more curriculum units for review by the national Educators Evaluating the Quality of Instructional Products (EQuIP) Peer Review Panel and revising *‘We are Made of Starstuff’* based on the earlier review.

Classroom presentations. There were no presentations in August.

Field trips to Sanford Lab. We have revised our field trip offerings for the fall to include three new activities and to reintroduce another that has not been offered for a few years. The current offerings are given in Table 1.

Eight dates have been set for fall field trips, and schools are beginning to sign up online.

Other activities. We are working on research and development for a digital performance task (lesson) based on the engineering required to move and liquefy argon gas for the DUNE detectors.

Table 1. Fall 2017 Field Trip Activities*

| Grades | Title | Description |
|----------------------|--------------------------------------|--|
| Early Elementary | An Introduction to Sanford Lab | This short, engaging, and active introduction to the Sanford Underground Research Facility introduces students to the daily operations of a science lab nearly one mile under the earth’s surface. |
| Upper Elementary | Exploring the Universe through Light | The detection of light is a very powerful tool for exploring the universe, but what happens if something does not interact with light? Learn how scientists are attempting to study dark matter. |
| | Hoist Engineering Challenge | The challenge...work with a team and use your engineering skills to design, test, and build a system that is capable of lifting a load (weight) up a plastic tube (shaft) using only the materials provided. |
| | Seismic Signatures | Explore the properties of waves, listen to seismic resonances, and then use real data from Sanford Lab tiltmeters to evaluate an earthquake that occurred on the other side of the world. |
| Middle | Radiation – It’s Everywhere! | Working as scientists and engineers, students will use what they learn about a material’s ability to shield radiation to design a safeguard for a model of the LZ dark matter detector. |
| Middle / High School | Geology of the Open Cut | Through activities that explore the geology of the Northern Black Hills (at the Open Cut), discover why the Homestake Gold Mine was one of the premier producing mines in North America. |
| | Needle in a | Do you have what it takes to detect an ultra-rare signal? Discover how scientists are utilizing background reduction and background rejection in |

| | | |
|-------------|-----------------------------|---|
| | Haystack! | their quest to detect neutrinoless double beta decay. |
| High School | Cavern Excavation Challenge | Discover the geotechnical challenges of underground cavern excavation nearly a mile beneath the surface of the earth at the Sanford Underground Research Facility. |
| | Cosmic Radiation | Cosmic radiation constantly bombards the earth. This natural radiation is harmless and invisible to people, but these particles could be ruinous to the sensitive detectors operating at Sanford Lab. |

**Shaded rows indicate new activities for Fall 2017*

Table 2. Total Impact – August 2017

| Group | Students | | | | | Educators | | | Community | | |
|---|----------|----------|----------|-----------|----------|---------------|----------------------|----------|-----------|-------------------|----------------|
| | K-5 | 6-8 | 9 -12 | Undergrad | Graduate | K-12 Educator | Univ. Faculty/ Staff | Informal | Parents | Sanford Lab Staff | General Public |
| Solar Eclipse Team | 0 | 0 | 6 | 10 | 0 | 2 | 3 | 0 | 1 | 0 | 0 |
| Nebraska Eclipse Presentations (x3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 265 |
| Grand Total | 0 | 0 | 6 | 10 | 0 | 2 | 3 | 0 | 1 | 0 | 265 |
| Grand Total: 287 students, educators and members of the general public | | | | | | | | | | | |

E&O Appendix. The South Dakota Solar Eclipse Balloon Team



Video from two cameras: <https://youtu.be/iQgK-aE7RHA>.

Table A-1. The Team

| Name | School | Role |
|-------------------|-----------------------------|--------------------------------|
| Dr. Jason Ash | SDSM&T | Faculty Advisor, Mech Eng |
| Gina Bestgen | SDSM&T | Senior Design Team (Mech Eng) |
| Zachary Christy | SDSM&T | Student Volunteer |
| Cameron Collins | Alliance High School | Student Volunteer |
| Cody Cronin | SDSM&T | Senior Design Team (Elect Eng) |
| Anthony Cullison | SDSM&T | Senior Design Team (Mech Eng) |
| Mark Custer | Alliance High School | Teacher Advisor |
| Lily Fridell | Custer High School | Student Volunteer |
| Steve Gabriel | Spearfish High School | Teacher Advisor |
| Dylan Horton | Alliance High School | Student Volunteer |
| David Maxey | SDSM&T | Senior Design Team (Mech Eng) |
| Dr. Peggy Norris | Sanford Lab / BHSU | Principal Investigator |
| Dominick Oedekon | Sturgis Brown High | Student Volunteer |
| Preston Pohlman | Alliance High School | Student Volunteer |
| Dakotah Rusley | SDSM&T | Student Volunteer |
| Daniel Rynders | Lead-Deadwood High (SDSM&T) | Project Intern |
| Noah Storm | University of Minnesota | Project Intern |
| Levi Stotz | SDSM&T | Senior Design Team (Mech Eng) |
| Dr. Charles Tolle | SDSM&T | Faculty Advisor, Elect Eng |
| Hannah Young | Spearfish High (Stanford) | Project Intern |
| Mark Young | Spearfish | Parent Volunteer |
| Zachary Young | Alliance High School | Student Volunteer |

Table A-2. Media Links

| | |
|--|---|
| SDPB Innovations Broadcast (8/11) | http://listen.sdpb.org/post/moment-innovation-total-eclipse |
| KOTA Territory News (8/16) | https://www.youtube.com/watch?v=tLrAmdXaRiA&feature=youtu.be |
| NewsCenter 1 (8/18) | http://www.newscenter1.tv/clip/13612346/sd-mines-high-school-students-conducting-solar-eclipse-experiment |
| NBC Nebraska (Launch, 8/21) | http://www.nbcneb.com/scottsbuff/content/news/NASA-balloon-project--441330543.html |
| Black Hills Pioneer (8/18, 8/23) | http://www.bhpioneer.com/local_news/eclipse-balloon-crew-successfully-intercepts-moon-shadow/article_66afe53a-8826-11e7-8dcf-d3ecfcfe505c.html |
| | http://www.bhpioneer.com/local_news/racing-with-the-moon/article_2d9e6350-843b-11e7-af3c-3b67e0e4a6fo.html |
| Alliance Times Herald (8/22) | http://www.alliancetimes.com/news/students-gather-data-during-eclipse/article_d9f40ce2-879f-11e7-b016-6f5748afc28e.html |
| Denver Post (8/11) | http://www.denverpost.com/2017/08/11/solar-eclipse-path-of-totality-carhenge/ |

Communications

In partnership with the SLHVC, the Communications and E&O Departments organized the 95 Percent Eclipse Party. The event was held at the SLHVC and drew about 400 people.

The Communications Department is creating an interactive display for use during Fermilab's Open House in September. Creative Services Developer Matt Kapust and Research Scientist Markus Horn will attend the event in Batavia, IL; Communications Director Connie Walter will host the underground videoconference with Liaison to SURF for MJD project Cabot-Ann Christofferson at Sanford Lab.

Community Outreach/Media/Site Visits

- The Communications Team helped with the following tours: Spearfish Economic Development Corporation, August 2; Sen. Rounds' staffers, August 18 and 24; BdW (German astrophysics magazine), August 23; Sen. Thune staffer, August 29.
- Connie provided presentations to the following groups: South Dakota Association of Mutual Insurance Companies, August 17; Kiwanis Club (Spearfish), September 1.
- A media company, WeLens.org, returned to finish interviews with Sanford Lab staff. interviews for USA Today reporter were also arranged.
- Upcoming events: International Dark Matter Day, October 30. Deep Talks begin in October.

Video, Web, Graphics

- Matt is participating in getting the new Learning Management System operational.
- Recording will begin on the cultural awareness video in September.
- Photo albums in the Sanford Lab Photo Gallery may be viewed at: <http://pics.sanfordlab.org>.
- Ongoing: Stories for Deep Thoughts; updates to the website; general web maintenance; assist media, science collaborations and educational institutions with photographic and information needs.

The August Communications Photos are included as Appendix A.

News coverage

- [Looking at dark matter](#), by Kirsten Flint, Phys.org—Sept. 5, 2017
- [How the Deep Underground Neutrino Experiment will work](#), by Ian O'Neill, How Stuff Works, Aug. 25, 2017
- [Mega-collaborations for scientific discovery](#), by Leah Poffenberger, Symmetry Magazine, Aug. 24, 2017
- [Eclipse balloon crew successfully intercepts moon shadow](#), by Al Van Zee, Black Hills Pioneer, Aug. 23, 2017
- [7 of the world's most impressive subterranean structures](#), by Tim Newcomb, Popular Mechanics, Aug. 14, 2017
- [Secrets of the universe may lie in an old gold mine in South Dakota](#), by Katharine Lacky, USA Today, Aug. 9, 2017
- [Dark energy survey reveals most accurate measurement of dark matter structure in the universe](#), Fermilab News, Aug. 2, 2017

Contracts Status

Professional Staff Services-Fermilab: The subcontract is funded through September 30. The contract type is transitioning from firm fixed price labor rates to cost reimbursable beginning October 1.

LBNF Design Basic Ordering Agreements-Fermilab: The two design subcontracts are in the process of transitioning to Fermilab.

Ross Shaft Rehabilitation-Fermilab: The subcontract is funded through October 31. SDSTA is preparing a request for additional scope and funds.

SURF Services-Fermilab: SDSTA submitted a cost proposal for a nine-month subcontract extension (to June 30, 2018), with three optional months (July-September 2018).

LZ-Lawrence Berkeley National Lab: Scope and funds were added to the LZ Project, Subcontract No. 7255146.

LZ Operations-Lawrence Berkeley National Lab: SDSTA received modification No. 1 to Subcontract No. 7355157 for LZ operational support.

SDSTA hosted a visit by Fermilab's new Chief Financial Officer Vanessa Peoples and Acquisition Officer Po Collins.

SDSTA received another 100,000 cubic liters (l³) of xenon at the SLAC National Accelerator Laboratory, bringing the total quantity received to 900,000 l³. The remaining quantity (600,000 l³) is scheduled for delivery in 2018.

Summary of Contracts Awarded by SDSTA in August:

| Contract# | Contractor/Vendor | Type | Project |
|------------------|--------------------------------|-------------|-------------------------------------|
| 2014-33 | Kathleen Hart | CO#4 | Geologic Consulting |
| 2015-21 | Albertson Engr. | CO#5 | Structural/Civil Engr. |
| 2014-19 | Jim's PUL | CO#3 | Utility Locating |
| 2016-03 | M&M Sanitation | CO#3 | Sanitation Services |
| 2014-16 | Ford Trucking | CO#3 | Trucking Services |
| 2013-06 | Galyn Rippenstrop | CO#7 | UG Access Review |
| 2015-25 | Silverado Inc. dba Overhead | CO#1 | Inspection & Repairs Services |
| 2016-07 | Ainsworth Benning Construction | CO#10 | Admin & Foundry Building Re-roofing |
| 2017-26 | TBD | RFQ | General Services |
| 2017-27 | TBD | RFQ | Mobile Crane Services |
| 2017-28 | TBD | RFQ | Metal Fab Services |
| 2017-29 | TBD | RFQ | HVAC Mechanical |
| 2017-30 | TBD | RFQ | Plumbing Services |
| 2017-08 | Horsley Specialties | CO#2 | Ellison Asbestos Removal |
| 2017-31 | Sandbox Studio | Contract | Web Security Updates |
| 2014-18 | Silver State Wire Rope | CO#3 | Bi-Annual NDT Wire Rope Inspections |
| TBD | Surplus Prop Sale | RFB | Palmer Diesel Tanks |

Purchase Orders (POs): 153 POs were issued in August totaling **\$164,762.72**

Warehouse Inventory: Warehouse inventory on August 31, 2017 totaled **\$210,708.28**.

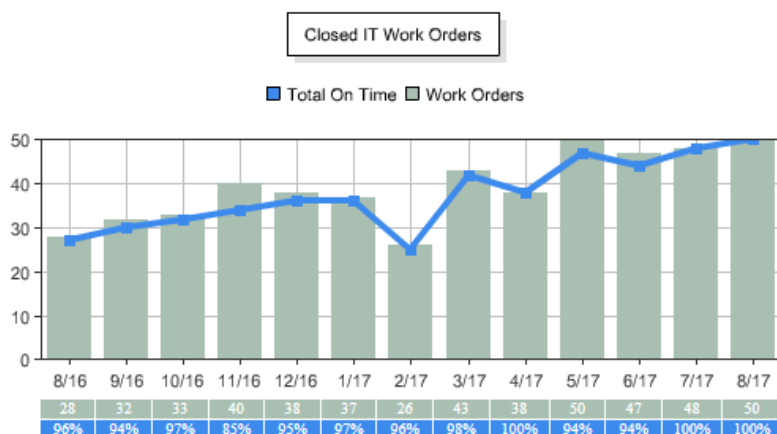
Information Technology

Projects

- The new storage area network (SAN) was received and deployed in August. All virtual servers were moved to the new SAN and data is currently being moved. This replaces the existing end-of-life hardware.
- IT is drafting a computer security policy focusing on security requirements and appropriate user and device usage.
- A new network switch for the Davis Campus was received and configured and is ready for deployment.
- IT worked with Project Controls Analyst Pam Hamilton and the ESH Department on the technical scoping of the new Learning Management System.
- Support Technician James Mitchell assisted the Communications, Facility Infrastructure and Science Departments with projects on the surface and underground.
- IT assisted with several office moves by routing cable, connecting phones and setting up computers.
- Updates were made to several custom applications including the Trip Action Plan database and Visitor Registration database.

Daily Activities

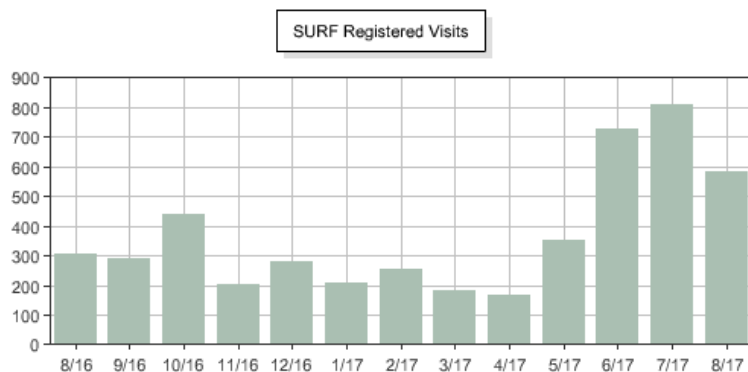
In addition to work order activity, IT monitors and reviews wireless and general network activity and counts, network hardware readiness, VPN Remote Access logs, and establishes new VPN and DocuShare accounts for individuals and user groups, as requested.



Help Desk Activities (measured in Work Orders)

August Events

In August, a total of 583 Visitors, Contractors and Users visited the lab; a decrease of 221 people from last month. The August Visitor Log Report was submitted electronically to the SD Fusion Center/Homeland Security utilizing the database reporting tool.



Number of Visitors On-Site

Logistical and administrative support were provided for the following events, meetings and reviews in August:

- Aug 4: SURF Safety All Hands Meeting
- Aug 10, 11 & 18: Annual Refresher Training
- Aug 16: DOE Kevin Flood Visit and Underground Tour
- Aug 18 & 24: Senator Rounds Staff Visits and Underground Tours
- Aug 21-22: LBNF Review of Cryogenic Structure
- Aug 22: SURF All Hands Meeting
- Aug 23-24: LBNF Interface Meeting
- Aug 23: BdW (German journalists) Underground Tours
- Aug 29: Senator Thune Staff Visit and Underground Tour
- Aug 29-30: CM/GC Kickoff Meeting and Surface/Underground Tours
- Aug 30-31: Defense Intelligence Agency Meeting and Underground Tour

Planning continues for upcoming meetings and events through October 2017:

- *Sep 11: General Safety Basic Training*
- *Sep 12: nEXO Meeting*
- *Sep 14: Cultural Advisory Committee Meeting*
- *Sep 15: Lives of Leadership and Legacy (L3) Visit and Underground Tours including Denny Sanford*
- *Sep 19: CBS News Underground Tour*
- *Sep 20: SD Homeland Security/Public Service Underground Tour*
- *Sep 21: SDSTA Board of Directors Meeting*
- *Sept 26: Former Governor Frank Farrar Visit and Underground Tour*
- *Sep 27-28: Tabletop review with DOE, ORM, SDSTA*
- *Oct 15: State Republican House Caucus Underground & Surface Tours*
- *Oct 20: SURF All Hands Meeting*
- *Oct 24: LBNF Industry Day Visit (LAr suppliers)*
- *Oct 24: LBNF Public Meeting*
- *Oct 25 (date to be confirmed): Joint Appropriations Committee Underground Tour*
- *Oct 24 or 25 (date to be confirmed): LBNF Public Meeting*
- *Oct 26-28: Long Baseline Neutrino Committee (LBNC) Meeting*

Staff attended ManagerPlus training; Monthly Researcher hours were tracked and Science training records entered; Monthly invoices were coded for the Finance Department; Multiple purchase orders were updated and closed for Procurement; Monthly office supply order was received and sorted; new badges were processed; Tool box talks and work shift documentation were sorted and scanned; Operations expense reports were completed; Parts catalogs were copied, bound and distributed; Digital display information was updated.

August monthly reports for Fermilab and SDSTA were compiled, edited and distributed. The SDSTA Policies and Procedures Manual redesign project continues with assistance from the Communications Department. The SDSTA Leave Policy has been updated and will be submitted for Board approval at the September 21 meeting.

Finance and Human Resources

Included in the Financial Report are the following:

- SDSTA SURF Services FY2017 SPA Curve as of August 2017 (included as Appendix B)
- SDSTA Staffing Plan by Funding Source as of August 2017 (included as Appendix C)
- Financial Summary (included as Appendix D)
 - Balance Sheet as of August 2017
 - Comprehensive Statement of Income August 2017
 - Comparative Balance Sheet – August 2017 vs. August 2016
 - Comparative Statement of Income – August 2017 vs. August 2016
 - Available Resources as of August 2017
 - Operating Budget Summary
 - CAPEX Budget Summary
 - August 2017 and YTD CAPEX Budget – actual vs. budget

SDSTA SURF Services FY2017 Scheduled Performed Actual (SPA) Curve

This graph represents an analysis of the SURF Services subcontract No. 629760 scheduled funding compared to actual. The report shows funding through September 2017 along with information related to Funded-to-Date dollars, Scheduled dollars, Performed dollars and Actual dollars by month. This subcontract will be continued for support from October 2016 through June 2018 until an additional five-year contract can be negotiated with Fermi Research Alliance LLC (FRA). Actual dollars represent actual invoices for the months sent to FRA for reimbursement. For August, the invoices totaled \$1,112,045 which is lower than the anticipated reimbursements of \$1,160,785 by \$48,740. Cumulative expenses are at \$12,577,323 which is lower than the budgeted \$13,303,008 by \$725,685.

Balance Sheet Items

Cash in Local Checking—Total on hand at August 31, 2017 was \$1,326,349; up from last month by \$80,747. Funds on hand were necessary to pay employee medical/life/vision insurance due September 1. The balance also contains funds received from federal contracts late in the month on open accounts receivable.

Cash with State Treasurer—Total balance of \$13,270,634. This balance has increased from last month by \$137,275. This increase is a combination of receiving the interest proration from fiscal year 2017 at \$174,924 and drawing down funds for August payable at \$37,649.

Billed Accounts Receivable (A/R)—Billed A/R represents any open invoices based on contracts from sources such as LBNL, Fermilab, other smaller contracts from other universities and Barrick-Homestake Mining Company. Total is at \$1,435,671; down from last month by \$404,672. Included in the balance are open invoices to LBNL for \$70,546; representing invoices for the Large Underground Xenon (LUX) subcontract and LUX-ZEPLIN (LZ) engineering support and a new (LZ) Operations contract. Additional open invoices include \$1,320,368 from Fermilab primarily from the SURF Services subcontract and the Ross Shaft Rehabilitation work. Additionally, there are open receivables for \$7,962 from small university subcontracts, Barrick/Homestake for \$36,509 and \$285 from Xilinx, Inc., the commercial organization that has established an experiment located near the 4850L Davis Campus.

Unbilled A/R—Balance at \$423,168. Unbilled A/R represents items that have not been billed on various contracts. The payroll from pay end date August 25, 2017 (paid on September 1, 2017) was not invoiced in August on various contracts. This amount will be invoiced in September. August's balance has decreased by \$43,989.

Other A/R—Current balance of \$129,530. This balance represents any Interest Receivable and Miscellaneous Accounts Receivable. The balance decreased by \$193,549, which is a result of receiving our fiscal year 2017 interest, plus the interest accrual for August, and activity for noncontract receivables.

Inventory/Supplies—Balance at \$2,408,323 for fixed assets being stored but not in service. The balance has not changed from the previous month.

Inventory Warehouse/Personal Protective Equipment (PPE)—Current balance of \$31,609. This balance represents the warehouse inventory that was purchased by SDSTA prior to federal funding. The balance has not changed from July.

Other Current Assets—This listing on the balance sheet represents the balances of both prepaid insurance—\$517,706 and prepaid other—\$37,455. Total balance of \$555,161 is down from last month by \$79,927. This decrease represents the monthly insurance expense along with the expensing of various prepaid items in August.

Fixed Assets—Total of \$84,450,406 (net of depreciation through August 31, 2017). Fixed assets are unchanged for the month except for depreciation which results in a decrease of \$164,847.

Work in Progress—This balance represents the current fiscal year progress being made using Sanford/SDSTA Funds to support the budgeted projects on the CAPEX budget less any items that are being capitalized within the Fixed Asset designation or Xenon Purchased. Current balance has increased by \$814,849 to \$868,714.

Capital Lease—This balance of \$175,226 represents the deep pump system capital lease. The balance has decreased \$15,614. The lease through AmWest, Inc. was renegotiated to include transference of property to SDSTA at the end of the lease term in January 2018. The rental payments are being directly charged to the LBNL federal subcontract. Per the subcontract, the pumping system will become the property of the federal government at the end of the lease period. The equipment will be fully expensed over the period of the lease at which time it will be removed (along with the lease liability) from the SDSTA's balance sheet.

Pension Deferred Outflows—This designation on our Balance Sheet reflects the requirements related to the Governmental Accounting Standards Board (GASB) No. 68 and No. 71 in reference to pensions. SDSTA is required to report the net pension asset or liability on the face of our financials along with related deferred inflows and outflows. The State's retirement system is no longer fully funded. The actuarially accrued liability

of the fund is more than the assets of the fund. Therefore, for fiscal year 2017, we have a Net Pension Liability rather than a Net Pension Asset. The balance Pension Deferred Outflows shown as a noncurrent asset is \$4,174,730 created by fiscal year 2017 final entries. GASB No. 68 requires that the amount reported as deferred outflows and inflows as they relate to the net difference between the projected and actual earnings on pension plan investments should be netted for reporting purposes. The recorded amounts have been summarized as Pension Deferred Outflows. This balance has decreased by \$2,113,124 from the previous statement.

Xenon Purchased—Balance of \$5,040,356 represents the value of xenon purchased for future use by experiments. The xenon inventory is considered a non-current asset and includes all the purchases through fiscal year end 2017.

Total Assets—Total of \$114,289,877. This balance is down from last month by \$1,982,851; which represents the net activity as listed above.

Accounts Payable—Our Total Accounts Payable balance of \$1,312,950 at the end of the month compared to last month has increased by \$319,922. This increase is primarily due to the increased amount owed to Arup for final LBNF services.

Accrued Payroll Liabilities—Current balance of \$1,324,995 has decreased by \$54,757 from last month. This represents the net change between earned vacation and vacation taken and other changes in other employee benefit-related liabilities.

Long Term Accrued Employee Benefit/Lease—This balance of \$175,226 denotes the liability associated with the capital lease for the deep pump system from AmWest, Inc. This balance has decreased by \$15,614 for the months' reduction in the lease amount owed.

Long Term Xenon Notes Payable—This designation represents \$2M of funding received from the South Dakota Community Foundation as well as an additional \$1M received in January 2017 from the South Dakota State University Foundation and \$1M received in February 2017 from the University of South Dakota Foundation. The \$4,000,000 balance is designated for purchasing xenon for experiment use at Sanford Lab.

Pension Deferred Inflows—This classification reflects the requirements of GASB No. 68 and No. 71, as discussed earlier. The State's retirement system is no longer fully funded. The actuarially accrued liability of the fund is more than the assets of the fund. Therefore, for fiscal year 2017, we have a Net Pension Liability rather than a Net Pension Asset. The balance of \$1,698,193 represents our portion of the Net Pension Liability as it relates to the pension plan with the South Dakota Retirement System.

Total Liabilities—Total Liabilities decreased by \$1,237,058 (from \$9,748,423 to \$8,511,365), which reflects the net activity listed above.

Total Equity—Decrease to \$105,778,513 from the previous month \$106,524,306.

Total Liabilities & Equity—Decrease to \$114,289,877 from the previous month of \$116,272,729.

Statement of Income Items

On the SDSTA's Statement of Income, the DOE Subcontracts are consolidated into one line item on the report. Included in this amount are various subcontracts from LBNL, Fermi National Accelerator Laboratory (FNAL), as well as a small contract for the MAJORANA project with the University of North Carolina. Total revenue for this fiscal year through August 2017 is \$3,422,731 (increase from July of 1,817,373).

National Science Foundation (NSF)/National Aeronautics & Space Administration (NASA) Subcontracts—Total revenue through August 2017 from this funding is \$3,650 (increase from July of \$1,859). The balance represents revenue from the SDSM&T for CASPAR.

State Revenue—Year-to-date State Revenue equals \$141. This was received from a small subcontract from Black Hills State University.

Contributions & Donations—The Great Plains Education Foundation contributed \$125,000 in July for the education efforts at the SDSTA.

Interest income recorded for the current fiscal year on State Funds is at \$22,005. This represents interest accruing at 1% on the cash held by the state on behalf of the SDSTA.

Direct Costs are then listed on the Statement of Income. The classifications for Unallowable Costs and Indirect Costs are listed as well on this report to follow the federal contracting format. Direct Costs/Unallowable Costs are at \$2,259,376 for the current fiscal year. Indirect Costs including fringe benefits are at \$1,449,968. Costs are higher than revenue by \$135,482. Yet, the unbilled payroll from pay end date 8/25/17 of \$423,168 has not been reflected in revenue. As explained earlier this will be accomplished in September. Other Income is at \$179,246 which represents miscellaneous income received from Xilinx and small amounts from Barrick. Net income through August after Re-class Increase in Net Assets is at \$373,458.

Comparative Balance Sheet

Significant differences include Total Cash with State Treasurer which is lower by \$850,183 from this time last year as funds were expended over the 12-month period. Other notable differences exist for Billed A/R which has decreased by \$903,540 due to payments being received on various contracts as well as no longer having the design contract with Arup. Total Fixed Assets have increased by \$245,046 due to capitalizing additional fixed asset for fiscal year 2017. Pension Deferred Outflows has decreased by \$2,113,124 due to no longer having a Net Pension Asset (discussed earlier). Xenon Purchased has increased by \$3,433,693 for the purchases made during fiscal year 2017. In summary, Total Assets have decreased by \$24,871. Total Current Liabilities have decreased by \$277,418 from this time last year. This decrease is primarily due to currently owing less to vendors when comparing the two timeframes. Total Other Liabilities have increased by \$374,719 primarily due to Xenon Notes that have increased for the \$2M receipt from South Dakota State University Foundation loan and the University of South Dakota loan. Yet, Pension Deferred Inflows has decreased showing the Net Pension Liability for fiscal year 2017 year end. Total Equity has decreased slightly by \$122,172 from this time last year. In summary, Total Liabilities & Equity have decreased by \$24,871. Restricted Funds are lower than this same time last year, but Investment in General Fixed Assets as well as Unrestricted Funds are both higher when comparing the two timeframes.

Comparative Profit/Loss

Total Revenue for year-to-date August 2017 compared to year-to-date August 2016 has decreased by \$1,082,132. DOE subcontract revenue has decreased by almost 24% due to no longer having the design contract with Arup. Direct Costs and Indirect Costs for year-to-date August 2017 compared to this time last year show a combined decrease of \$1,573,845 (29.8% decrease). This is due to incurring less expenses this fiscal year for the Arup design contracts. The contracts for design with Arup are being transferred to Fermilab. Indirect Costs are also lower than last year this same time. Other Income is higher for the comparative time periods primarily due to receiving funding for the Davis-Bahcall Scholars Program and receiving funding from Homestake Mining Company for one half of the expenses for asbestos abatement on the recently purchased Ellison Hill property. Net Income/Loss for the comparative time periods shows an increase in income of \$613,855.

Available Resources

This report reflects our available cash/accounts receivable after noting the restricted cash balances in the Indemnification and Mine Closure accounts, and funds held for Experiments—xenon purchase, experiment infrastructure upgrades and interest for investors. This report has been restructured to better reflect our available cash and (short term) accounts receivable as compared to our current liabilities including accrued payroll liabilities. It is important to include receivables as many the items in accounts payable are invoiced on our current federal contracts. \$1,582,781 is available after noting our current obligations. It is also important to note that our accrued payroll liabilities include accrued vacation and sick pay. Therefore, the current report better reflects our available resources compared to current obligations.

Operating Budget Analysis

This report is separated into three sections: SDSTA-funded activities, Federal & State funded activities and Indirect expenses that benefit various activities. Total operating expenses are under budget for August 2017 by \$96,836. Very few areas are over budget for the month but by immaterial amounts. Year-to-date figures are under budget by \$621,528. Indirect Charges Other are over budget as this category includes depreciation expense (no actual cash outlay).

Capital Expenditure Budget Analysis

Our current capital expenditure projects have been condensed and are listed from CAP2014-01—CAP2017-02 with various breaks in the numbering sequence. Total project dollars have been reduced to \$4,677,160. All projects with the exception of the LZ Surface & Facility Upgrades and LZ Xenon Gas Purchase are funded by the balance of Sanford Funds as directed by the Fifth and Sixth Amendments to the Homestake Gift Agreement, a small amount of scrap metal funding and funding from private fundraising activities. Funding for the LZ Surface & Facility Upgrades and LZ Xenon Gas Purchase was secured from the GOED granting \$6,000,000 over three years. Additionally, loan documents have been executed for \$2,000,000 each from the South Dakota Community Foundation, the South Dakota State University Foundation and the University of South Dakota Foundation for xenon purchases. In August 2017, we spent \$720,709 on our CAPEX projects which is lower than the budgeted \$770,018. Year-to-date we have spent \$774,574 on these projects.

Human Resources

There are currently 121 full time employees and 12 temporary staff, primarily Emergency Response Team members. Temporary staff has decreased as the summer interns are no longer working at SDSTA. ESH Director Noel Schroeder was terminated on September 1. His position is being backfilled. Infrastructure Technicians Lance Lopez and Josh Quenzer resigned on August 25. Their positions will not be backfilled. An Engineering Technical Associate position has been posted for the Engineering Department. This position will be open until filled.

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APPENDIX

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Appendix A - Communications Department Photos



Top: John Wilkerson (left) and Cabot-Ann Christofferson check systems on the Majorana Demonstrator experiment. The detectors are encased in the large metal cube.

Center left: Sanford Lab employees gather to show off their wheels during a lunch break.

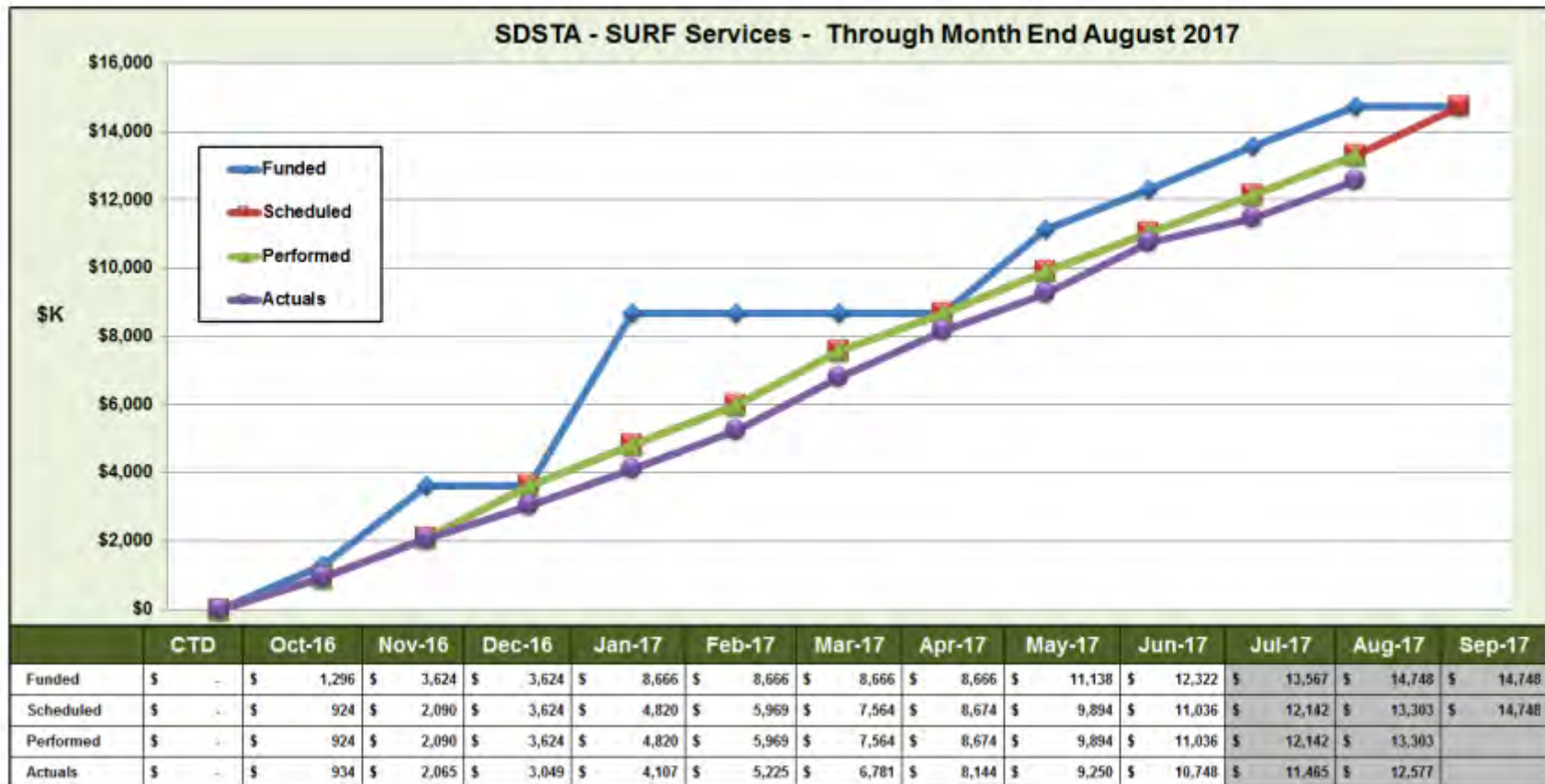
Center right: Kids view the eclipse at a Sanford Lab and Sanford Lab Homestake Visitor Center event. Around 300 people attended.

Bottom right: Markus Horn speaks to a group of German scientists at the Davis Campus on the 4850 Level.



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Appendix B Finance & HR Department



**DOE SDSTA FY 2017 SPA Curve
August 2017**

Appendix C

Finance and Human Resources Department

FTE Report - All Fund Sources - FY17 - August 2017

Revised: September 11, 2017

| Source/WBS | Oct-16 | Nov-16 | Dec-16 | Jan-17 | Feb-17 | Mar-17 | Apr-17 | May-17 | Jun-17 | Jul-17 | Aug-17 | Sep-17 |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| SDSTA | 1.30 | 1.30 | 1.30 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 |
| Administration | 1.30 | 1.30 | 1.30 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 |
| DOE SURF SERVICES | 77.95 | 77.95 | 76.95 | 77.90 | 77.90 | 77.90 | 77.70 | 76.70 | 77.00 | 77.15 | 77.15 | 75.15 |
| Administration | 0.70 | 0.70 | 0.70 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| ESH | 11.75 | 11.75 | 11.75 | 11.75 | 11.75 | 11.75 | 11.75 | 10.75 | 10.75 | 11.40 | 11.40 | 10.40 |
| Engineering | 4.10 | 4.10 | 4.10 | 4.10 | 4.10 | 4.10 | 3.90 | 3.90 | 4.20 | 3.70 | 3.70 | 3.70 |
| Science | 6.15 | 6.15 | 5.15 | 5.15 | 5.15 | 5.15 | 5.15 | 5.15 | 5.15 | 5.15 | 5.15 | 5.15 |
| Operations | | | | | | | | | | | | |
| Management | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 |
| Ross Shaft | 0.00 | 0.00 | 0.00 | 2.10 | 2.10 | 2.10 | 2.10 | 2.10 | 2.10 | 2.10 | 2.10 | 2.10 |
| Yates Shaft | 16.00 | 16.00 | 16.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 | 15.00 |
| Hoist Operations | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 | 6.00 |
| Hoist Maintenance | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 | 2.60 |
| Ventilation | 0.30 | 0.30 | 0.30 | 0.30 | 0.30 | 0.30 | 0.30 | 0.30 | 0.30 | 0.30 | 0.30 | 0.30 |
| Hazard Mitigation | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| Water Treatment | 5.40 | 5.40 | 5.40 | 5.15 | 5.15 | 5.15 | 5.15 | 5.15 | 5.15 | 5.15 | 5.15 | 5.15 |
| Dewatering | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Electrical Power Distribution | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 2.90 |
| Cyberinfrastructure | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| Buildings and Grounds | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 |
| Equipment Maintenance | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 | 1.75 |
| Davis Campus | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 |
| ROSS SHAFT (DOE) | 27.90 | 27.90 | 27.90 | 27.90 | 27.90 | 27.90 | 27.90 | 27.90 | 27.90 | 27.90 | 27.90 | 27.90 |
| LZ | 2.15 | 2.15 | 2.15 | 2.15 | 2.15 | 2.25 | 2.25 | 2.25 | 3.35 | 4.20 | 4.20 | 4.20 |
| LBNF / DUNE | 1.60 | 1.60 | 1.60 | 1.60 | 1.60 | 1.60 | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 | 1.80 |
| LUX OPERATIONS | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| INDIRECT | 17.00 | 17.10 | 17.10 | 17.10 | 17.10 | 17.10 | 16.10 | 17.10 | 17.10 | 16.10 | 16.10 | 16.10 |
| Grand Total | 128.90 | 129.00 | 128.00 | 128.35 | 128.35 | 128.35 | 127.35 | 127.35 | 127.85 | 127.85 | 127.85 | 125.85 |

**SDSTA Staffing Plan by
Funding Source August 2017**

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Appendix D - Financial Summaries August 2017

REPORT DATE 09/11/17

SOUTH DAKOTA SCIENCE & TECHNOLOGY

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DIVISION: ALL

BALANCE SHEET

ASSETS

AS OF
08/31/17

CURRENT ASSETS

| | | |
|---------------------------|----|---------------|
| First Interstate Checking | \$ | 1,315,832.16 |
| First Interstate Other | | 10,516.52 |
| | | ----- |
| Total in Local Checking | | 1,326,348.68 |
| SD Treas: Indemnification | | 7,500,000.00 |
| SD Treas: Mine Closure | | 1,415,782.17 |
| SD Treas: Operating | | 480,685.27 |
| SD Treas: Sanford Gift #2 | | 407,871.97 |
| SD Treas: Experiments | | 3,466,294.86 |
| | | ----- |
| Total with SD Treasurer | | 13,270,634.27 |
| Billed A/R | | 1,435,671.44 |
| Unbilled A/R | | 423,167.68 |
| Other A/R | | 129,530.25 |
| Inventory - Supplies | | 2,408,322.74 |
| Inventory - Warehouse | | 31,608.73 |
| Other Current Assets | | 555,161.29 |
| | | ----- |
| Total Current Assets | | 19,580,445.08 |

FIXED ASSETS

| | | |
|---------------------------|--|-----------------|
| Land, Underground & Other | | 12,633,473.13 |
| Bldgs & Infrastructure | | 9,463,947.80 |
| Improvements | | 64,037,250.80 |
| Computer Equipment | | 434,783.19 |
| Equipment & Fixtures | | 11,082,739.99 |
| Accum Depr & Amort | | (13,201,789.01) |
| | | ----- |
| Total Fixed Assets | | 84,450,405.90 |

OTHER ASSETS

| | | |
|---------------------------|--|---------------|
| Work in Process | | 868,714.29 |
| Equipment - Capital Lease | | 175,226.07 |
| Pension Deferred Outflows | | 4,174,730.00 |
| Xenon Purchased | | 5,040,356.11 |
| | | ----- |
| Total Other Assets | | 10,259,026.47 |

TOTAL ASSETS

=====

| | |
|----|----------------|
| \$ | 114,289,877.45 |
|----|----------------|

=====

DIVISION: ALL

BALANCE SHEET

LIABILITIES & EQUITY

AS OF
08/31/17

CURRENT LIABILITIES

| | | |
|---------------------------|----|--------------|
| Accounts Payable | \$ | 1,301,624.54 |
| Other Payables | | 11,325.80 |
| | | ----- |
| Total Accounts Payable | | 1,312,950.34 |
| Accrued Payroll Liab | | 1,324,995.20 |
| | | ----- |
| Total Current Liabilities | | 2,637,945.54 |

OTHER LIABILITIES

| | | |
|--------------------------|--|--------------|
| LT Accrued EB/Lease | | 175,226.07 |
| LT Xenon Notes Payable | | 4,000,000.00 |
| Pension Deferred Inflows | | 1,698,193.00 |
| | | ----- |
| Total Other Liabilities | | 5,873,419.07 |

EQUITY

| | | |
|---------------------------|--|----------------|
| Restricted: Indemnificati | | 7,500,000.00 |
| Restricted: Mine Closure | | 1,415,782.17 |
| Restricted: Sanford Gift2 | | 407,871.97 |
| Restricted: Pension | | 2,476,537.00 |
| Restricted: Experim. Int. | | 3,404,373.00 |
| | | ----- |
| Total Restricted Funds | | 15,204,564.14 |
| Investment in Gen FA | | 84,450,405.90 |
| Unrestricted Funds | | 6,123,542.80 |
| | | ----- |
| Total Equity | | 105,778,512.84 |

TOTAL LIABILITIES & EQUITY

=====

\$ 114,289,877.45

=====

ALL

STATEMENT OF INCOME

FOR THE PERIOD ENDING 08/31/17

| | YR-TO-DATE |
|---------------------------------------|-----------------|
| REVENUE | |
| DOE Subcontracts | \$ 3,422,730.71 |
| NSF/NASA Subcontracts | 3,650.29 |
| State Revenue | 140.88 |
| Contributions & Donations | 125,000.00 |
| Checking Interest | 334.72 |
| Interest Income | 22,004.56 |
| | ----- |
| TOTAL REVENUE | 3,573,861.16 |
| DIRECT COSTS | |
| Direct Labor | 1,085,338.27 |
| ERT Labor | 2,277.70 |
| Board of Directors | 1,375.51 |
| Capital Outlay >\$5K | 90,970.65 |
| Contractual Svcs | 395,536.86 |
| Inventory | 30,430.77 |
| Supplies | 203,208.02 |
| Travel - Domestic | 6,104.93 |
| Travel - Foreign | 10,938.08 |
| Utilities | 317,975.52 |
| Other Direct Costs | 52,546.41 |
| Unallow/Unbill Costs | 62,672.95 |
| | ----- |
| TOTAL DIRECT COSTS | 2,259,375.67 |
| INDIRECT COSTS | |
| Fringe Benefits | 584,103.38 |
| Overhead | 865,864.50 |
| | ----- |
| TOTAL INDIRECT COSTS | 1,449,967.88 |
| | ----- |
| GROSS PROFIT/LOSS () FROM OPERATIONS | (135,482.39) |
| | ----- |
| OTHER INCOME | |
| Water Treatment | 28,566.50 |
| Miscellaneous Income | 150,108.82 |
| Other Operating Income | 571.08 |
| | ----- |
| TOTAL OTHER INCOME | 179,246.40 |
| OTHER EXPENSES | |
| Reclass Incr Net Assets | (329,693.78) |
| | ----- |
| TOTAL OTHER EXPENSES | (329,693.78) |
| | ===== |
| NET INCOME/LOSS () | 373,457.79 |
| | ===== |

DIVISION: ALL

COMPARATIVE BALANCE SHEET

ASSETS

| | AS OF 08/31/17 | AS OF 08/31/16 | \$ CHANGE | % CHANGE |
|---------------------------|-------------------|-------------------|----------------|----------|
| CURRENT ASSETS | | | | |
| First Interstate Checking | \$ 1,315,832.16 | \$ 1,404,971.22 | \$ (89,139.06) | -6.34% |
| First Interstate Other | 10,516.52 | 15,213.61 | (4,697.09) | -30.87% |
| | ----- | ----- | ----- | ----- |
| Total in Local Checking | 1,326,348.68 | 1,420,184.83 | (93,836.15) | -6.61% |
| SD Treas: Indemnification | 7,500,000.00 | 7,500,000.00 | - | 0.00% |
| SD Treas: Mine Closure | 1,415,782.17 | 1,398,522.89 | 17,259.28 | 1.23% |
| SD Treas: Operating | 480,685.27 | 361,693.54 | 118,991.73 | 32.90% |
| SD Treas: Sanford Gift #2 | 407,871.97 | 1,271,295.97 | (863,424.00) | -67.92% |
| SD Treas: Experiments | 3,466,294.86 | 3,589,304.84 | (123,009.98) | -3.43% |
| | ----- | ----- | ----- | ----- |
| Total with SD Treasurer | 13,270,634.27 | 14,120,817.24 | (850,182.97) | -6.02% |
| Billed A/R | 1,435,671.44 | 2,339,211.26 | (903,539.82) | -38.63% |
| Unbilled A/R | 423,167.68 | 168,526.37 | 254,641.31 | 151.10% |
| Other A/R | 129,530.25 | 161,545.77 | (32,015.52) | -19.82% |
| Inventory - Supplies | 2,408,322.74 | 2,408,322.74 | - | 0.00% |
| Inventory - Warehouse | 31,608.73 | 34,559.52 | (2,950.79) | -8.54% |
| Other Current Assets | 555,161.29 | 463,649.77 | 91,511.52 | 19.74% |
| | ----- | ----- | ----- | ----- |
| Total Current Assets | 19,580,445.08 | 21,116,817.50 | (1,536,372.42) | -7.28% |
| FIXED ASSETS | | | | |
| Land, Underground & Other | 12,633,473.13 | 12,398,635.03 | 234,838.10 | 1.89% |
| Bldgs & Infrastructure | 9,463,947.80 | 8,881,327.62 | 582,620.18 | 6.56% |
| Improvements | 64,037,250.80 | 63,284,094.82 | 753,155.98 | 1.19% |
| Computer Equipment | 434,783.19 | 461,416.25 | (26,633.06) | -5.77% |
| Equipment & Fixtures | 11,082,739.99 | 10,528,964.60 | 553,775.39 | 5.26% |
| Accum Depr & Amort | (13,201,789.01) | (11,349,078.30) | (1,852,710.71) | 16.32% |
| | ----- | ----- | ----- | ----- |
| Total Fixed Assets | 84,450,405.90 | 84,205,360.02 | 245,045.88 | 0.29% |
| OTHER ASSETS | | | | |
| Work in Process | 868,714.29 | 784,156.03 | 84,558.26 | 10.78% |
| Equipment - Capital Lease | 175,226.07 | 313,897.83 | (138,671.76) | -44.18% |
| Pension Deferred Outflows | 4,174,730.00 | 6,287,854.00 | (2,113,124.00) | -33.61% |
| Xenon Purchased | 5,040,356.11 | 1,606,663.11 | 3,433,693.00 | 213.72% |
| | ----- | ----- | ----- | ----- |
| Total Other Assets | 10,259,026.47 | 8,992,570.97 | 1,266,455.50 | 14.08% |
| TOTAL ASSETS | | | | |
| | ===== | ===== | ===== | ===== |
| | \$ 114,289,877.45 | \$ 114,314,748.49 | \$ (24,871.04) | -0.02% |
| | ===== | ===== | ===== | ===== |

DIVISION: ALL

COMPARATIVE BALANCE SHEET

LIABILITIES & EQUITY

| | AS OF 08/31/17 | AS OF 08/31/16 | \$ CHANGE | % CHANGE |
|----------------------------|--------------------------|--------------------------|-----------------------|---------------|
| <hr/> | | | | |
| CURRENT LIABILITIES | | | | |
| Accounts Payable | \$ 1,301,624.54 | \$ 1,434,301.01 | \$ (132,676.47) | -9.25% |
| Other Payables | 11,325.80 | 203,858.85 | (192,533.05) | -94.44% |
| | ----- | ----- | ----- | ----- |
| Total Accounts Payable | 1,312,950.34 | 1,638,159.86 | (325,209.52) | -19.85% |
| Accrued Payroll Liab | 1,324,995.20 | 1,277,203.92 | 47,791.28 | 3.74% |
| | ----- | ----- | ----- | ----- |
| Total Current Liabilities | 2,637,945.54 | 2,915,363.78 | (277,418.24) | -9.52% |
| | | | | |
| OTHER LIABILITIES | | | | |
| LT Accrued EB/Lease | 175,226.07 | 313,897.83 | (138,671.76) | -44.18% |
| LT Xenon Notes | 4,000,000.00 | 2,000,000.00 | 2,000,000.00 | 100.00% |
| Pension Deferred Inflows | 1,698,193.00 | 3,184,802.00 | (1,486,609.00) | -46.68% |
| | ----- | ----- | ----- | ----- |
| Total Other Liabilities | 5,873,419.07 | 5,498,699.83 | 374,719.24 | 6.81% |
| | | | | |
| TOTAL LIABILITIES | 8,511,364.61 | 8,414,063.61 | 97,301.00 | 1.16% |
| | | | | |
| EQUITY | | | | |
| Restricted: Indemnificati | 7,500,000.00 | 7,500,000.00 | - | 0.00% |
| Restricted: Mine Closure | 1,415,782.17 | 1,398,522.89 | 17,259.28 | 1.23% |
| Restricted: Sanford Gift2 | 407,871.97 | 1,136,796.00 | (728,924.03) | -64.12% |
| Restricted: Pension | 2,476,537.00 | 3,103,052.00 | (626,515.00) | -20.19% |
| Restricted: Experim. Int. | 3,404,373.00 | 3,589,304.84 | (184,931.84) | -5.15% |
| | ----- | ----- | ----- | ----- |
| Total Restricted Funds | 15,204,564.14 | 16,727,675.73 | (1,523,111.59) | -9.11% |
| Investment in Gen FA | 84,450,405.90 | 84,205,360.02 | 245,045.88 | 0.29% |
| Unrestricted Funds | 6,123,542.80 | 4,967,649.13 | 1,155,893.67 | 23.27% |
| | ----- | ----- | ----- | ----- |
| TOTAL EQUITY | 105,778,512.84 | 105,900,684.88 | (122,172.04) | -0.12% |
| | | | | |
| TOTAL LIABILITIES & EQUITY | <u>\$ 114,289,877.45</u> | <u>\$ 114,314,748.49</u> | <u>\$ (24,871.04)</u> | <u>-0.02%</u> |

COMPARATIVE STATEMENT OF INCOME

FOR THE PERIOD ENDING 08/31/17

| | YEAR TO DATE | PRIOR YEAR TO DATE | \$ CHANGE | % CHANGE |
|---------------------------|-----------------|-----------------------|-------------------|----------|
| REVENUE | | | | |
| DOE Subcontracts | \$ 3,422,730.71 | \$ 4,500,949.74 | \$ (1,078,219.03) | -23.96% |
| NSF/NASA Subcontracts | 3,650.29 | 140.50 | 3,509.79 | 2498.07% |
| State Revenue | 140.88 | 12,000.00 | (11,859.12) | -98.83% |
| Contributions & Donations | 125,000.00 | 125,000.00 | - | 0.00% |
| Checking Interest | 334.72 | 23.61 | 311.11 | 1317.70% |
| Interest Income | 22,004.56 | 17,879.32 | 4,125.24 | 23.07% |
| | ----- | ----- | ----- | ----- |
| TOTAL REVENUE | 3,573,861.16 | 4,655,993.17 | (1,082,132.01) | -23.24% |
| DIRECT COSTS | | | | |
| Direct Labor | 1,085,338.27 | 1,136,435.31 | (51,097.04) | -4.50% |
| ERT Labor | 2,277.70 | 2,659.50 | (381.80) | -14.36% |
| Board of Directors | 1,375.51 | 131.28 | 1,244.23 | 947.77% |
| Capital Outlay >\$5K | 90,970.65 | 550,000.00 | (459,029.35) | -83.46% |
| Contractual Svcs | 395,536.86 | 1,200,989.93 | (805,453.07) | -67.07% |
| Inventory | 30,430.77 | 28,024.19 | 2,406.58 | 8.59% |
| Supplies | 203,208.02 | 274,898.00 | (71,689.98) | -26.08% |
| Travel - Domestic | 6,104.93 | 5,269.83 | 835.10 | 15.85% |
| Travel - Foreign | 10,938.08 | 45,868.52 | (34,930.44) | -76.15% |
| Utilities | 317,975.52 | 250,705.17 | 67,270.35 | 26.83% |
| Other Direct Costs | 52,546.41 | 40,041.00 | 12,505.41 | 31.23% |
| Unallow/Unbill Costs | 62,672.95 | 56,734.35 | 5,938.60 | 10.47% |
| | ----- | ----- | ----- | ----- |
| TOTAL DIRECT COSTS | 2,259,375.67 | 3,591,757.08 | (1,332,381.41) | -37.10% |
| INDIRECT COSTS | | | | |
| Fringe Benefits | 584,103.38 | 546,294.70 | 37,808.68 | 6.92% |
| Overhead | 865,864.50 | 1,145,136.62 | (279,272.12) | -24.39% |
| | ----- | ----- | ----- | ----- |
| TOTAL INDIRECT COSTS | 1,449,967.88 | 1,691,431.32 | (241,463.44) | -14.28% |
| GROSS PROFIT/LOSS () | (135,482.39) | (627,195.23) | 491,712.84 | -78.40% |
| | ----- | ----- | ----- | ----- |
| OTHER INCOME | | | | |
| Water Treatment | 28,566.50 | 43,682.15 | (15,115.65) | -34.60% |
| Miscellaneous Income | 150,108.82 | 23,494.19 | 126,614.63 | 538.92% |
| Other Operating Income | 571.08 | 506.60 | 64.48 | 12.73% |
| | ----- | ----- | ----- | ----- |
| TOTAL OTHER INCOME | 179,246.40 | 67,682.94 | 111,563.46 | 164.83% |
| OTHER EXPENSES | | | | |
| Reclass Incr Net Assets | (329,693.78) | (319,114.80) | (10,578.98) | 3.32% |
| | ----- | ----- | ----- | ----- |
| TOTAL OTHER EXPENSES | (329,693.78) | (319,114.80) | (10,578.98) | 3.32% |
| | ===== | ===== | ===== | ===== |
| NET INCOME/LOSS () | \$ 373,457.79 | \$ (240,397.49) | \$ 613,855.28 | 255.35% |
| | ===== | ===== | ===== | ===== |

South Dakota Science & Technology Authority
Available Resources
8/31/2017

| | |
|---|----------------------------|
| Cash Total Checking | \$ 1,315,832 |
| Cash With State Treasurer | <u>\$ 13,270,634</u> |
| Total Cash | \$ 14,586,466 |
| Less: Restricted Funds | |
| Indemnification/Mine Closure | \$ (8,915,782) |
| Experiments (Xenon, Interest, Infrastructure) | <u>\$ (3,466,295)</u> |
| Total Cash Available for Infrastructure Upgrades and Authority Operations | \$ 2,204,389 |
| Plus: Accounts Receivable Billed | \$ 1,534,065 |
| Accounts Receivable Unbilled | \$ 423,168 |
| Less: Current Liabilities (Accounts Payable & Accrued Payroll) | <u>\$ (2,578,841)</u> |
| (not including accts. pay. for Experiment funding) | |
| Available Cash | <u><u>\$ 1,582,781</u></u> |

SDSTA Operating Budget Summary FY2017

Actual vs Budget

Aug. 2017 & YTD

| | August 2017 | Budget | \$ Over/Under Budget | % of Budget | Actual YTD | YTD Budget | \$ Over/Under Budget | % of Budget | % Remaining |
|--|----------------|----------------|-------------------------|-------------|----------------|----------------|-------------------------|-------------|-------------|
| | | | | | | | | | 100% |
| SDSTA (Authority) Direct Charges | | | | | | | | | |
| Board of Directors | \$18,272.00 | \$19,900.00 | \$1,628.00 | 91.82% | \$38,147.00 | \$39,800.00 | \$1,653.00 | 95.85% | 4.15% |
| Executive Office | \$8,852.00 | \$15,017.00 | \$6,165.00 | 58.95% | \$20,950.00 | \$29,531.00 | \$8,581.00 | 70.94% | 29.06% |
| Science Center E & O | \$2,448.00 | \$0.00 | -\$2,448.00 | 100.0% | \$11,147.00 | \$25,749.00 | \$14,602.00 | 43.29% | 56.71% |
| Science Liaison | -\$877.00 | \$0.00 | \$877.00 | 100.0% | \$270.00 | \$0.00 | -\$270.00 | 100.00% | 0.00% |
| Sanf.L.Visitor C. (Director) | \$3,020.00 | \$4,537.00 | \$1,517.00 | 66.56% | \$6,588.00 | \$8,680.00 | \$2,092.00 | 75.90% | 24.10% |
| Subtotal | \$31,715.00 | \$39,454.00 | \$7,739.00 | 80.39% | \$77,102.00 | \$103,760.00 | \$26,658.00 | 74.31% | 25.69% |
| Federal/State Funding - Direct Charges | | | | | | | | | |
| Fermi P.O.#625691 B/Site Final Des. | \$111,365.00 | \$111,365.00 | \$0.00 | 100.0% | \$111,365.00 | \$111,365.00 | \$0.00 | 100.00% | 0.00% |
| Fermi P.O.#625692 Pre Excav.F.D. | \$164,508.00 | \$164,508.00 | \$0.00 | 100.0% | \$164,508.00 | \$164,508.00 | \$0.00 | 100.00% | 0.00% |
| Fermi P.O.#631450 Engin. Services | \$0.00 | \$0.00 | \$0.00 | 0.0% | \$2,000.00 | \$2,000.00 | \$0.00 | 100.00% | 0.00% |
| Fermi P.O.#629760 Bridge OPS | \$19,191.00 | \$27,137.00 | \$7,946.00 | 70.72% | \$23,558.00 | \$50,318.00 | \$26,760.00 | 46.82% | 53.18% |
| Fermi C#629760 Bridge OPS | \$910,953.00 | \$931,728.00 | \$20,775.00 | 97.77% | \$1,488,237.00 | \$1,819,700.00 | \$331,463.00 | 81.78% | 18.22% |
| Fermi C#630223 Ross Rehab | \$303,725.00 | \$479,408.00 | \$175,683.00 | 63.35% | \$617,819.00 | \$942,718.00 | \$324,899.00 | 65.54% | 34.46% |
| LBNL LUX C#6973786 | \$15,428.00 | \$16,500.00 | \$1,072.00 | 93.50% | \$20,129.00 | \$32,536.00 | \$12,407.00 | 61.87% | 38.13% |
| LBNL LUX/Zeplin C#7255146 | \$25,763.00 | \$33,167.00 | \$7,404.00 | 77.68% | \$34,143.00 | \$63,157.00 | \$29,014.00 | 54.06% | 45.94% |
| LBNL LZ Operations C#7355157 | \$1,621.00 | \$1,374.00 | -\$247.00 | 117.98% | \$2,148.00 | \$2,748.00 | \$600.00 | 78.17% | 21.83% |
| MJD (Majorana) ORNL144149 | \$2,428.00 | \$2,500.00 | \$72.00 | 97.12% | \$4,770.00 | \$5,000.00 | \$230.00 | 95.40% | 4.60% |
| BHSU-UGCampus Gen.Serv. | \$113.00 | \$200.00 | \$87.00 | 56.5% | \$113.00 | \$400.00 | \$287.00 | 28.25% | 71.75% |
| Sanf.Sci.Ed.Center - GOED Funded | \$100,599.00 | \$83,333.00 | -\$17,266.00 | 120.72% | \$100,599.00 | \$116,666.00 | \$16,067.00 | 86.23% | 13.77% |
| SDSM&Tech CASPAR Gen.Serv. | \$1,488.00 | \$2,666.00 | \$1,178.00 | 55.81% | \$2,920.00 | \$5,332.00 | \$2,412.00 | 54.76% | 45.24% |
| * Xilinx, Inc. P.O.#732495 | \$228.00 | \$240.00 | \$12.00 | 95.0% | \$457.00 | \$480.00 | \$23.00 | 95.21% | 4.79% |
| Subtotal | \$1,657,410.00 | \$1,854,126.00 | \$196,716.00 | 89.39% | \$2,572,766.00 | \$3,316,928.00 | \$744,162.00 | 77.56% | 22.44% |
| Indirect Expenses | | | | | | | | | |
| Indirect Charges Personnel | \$113,099.00 | \$117,288.00 | \$4,189.00 | 96.43% | \$226,628.00 | \$231,825.00 | \$5,197.00 | 97.76% | 2.24% |
| Indirect Charges Other | \$398,960.00 | \$287,152.00 | -\$111,808.00 | 138.94% | \$708,895.00 | \$554,406.00 | -\$154,489.00 | 127.87% | -27.87% |
| Subtotal | \$512,059.00 | \$404,440.00 | -\$107,619.00 | 126.61% | \$935,523.00 | \$786,231.00 | -\$149,292.00 | 118.99% | -18.99% |
| Totals | \$2,201,184.00 | \$2,298,020.00 | \$96,836.00 | 95.79% | \$3,585,391.00 | \$4,206,919.00 | \$621,528.00 | 85.23% | 14.77% |
| * Private Corporation (Commercial Group) | | | | | | | | | |

SDSTA CAPEX Budget Summary FY17/18
Actual vs Budget
August 2017 & YTD

| Budget Area | FY2018 Monthly | | | | FY2018 YTD | | | | |
|-------------------|----------------|---------------|----------------------|-------------|---------------|-----------------|----------------------|-------------|-------------|
| | Actual Month | Budget | \$ Over/Under Budget | % of Budget | Actual YTD | Budget | \$ Over/Under Budget | % of Budget | % Remaining |
| | | | | | | | | | 100.00% |
| Operational CAPEX | \$ 720,708.78 | \$ 770,018.00 | \$ 49,309.22 | 93.60% | \$ 774,574.29 | \$ 4,677,160.00 | \$ 3,902,585.71 | 16.56% | 83.44% |
| TOTAL CAPEX | \$ 720,708.78 | \$ 770,018.00 | \$ 49,309.22 | 93.60% | \$ 774,574.29 | \$ 4,677,160.00 | \$ 3,902,585.71 | 16.56% | 83.44% |

SD Science & Technology Authority
Operational CAPEX Budget
Monthly Actual vs Budget

| Project # | Project Description | Aug-17 | Budget | \$ Over/UnderBudget | % of Budget |
|----------------|-------------------------------------|---------------|---------------|---------------------|-------------|
| CAP2014-01 | Sanford Visitor Center Sign/Display | \$ 6,963.93 | \$ 5,268.00 | \$ (1,695.93) | 132.19% |
| CAP2014-05 | CASPAR Experiment Development | \$ - | \$ - | \$ - | 0.00% |
| CAP2016-02 | LZ Surface Facility Upgrades | \$ 59,105.00 | \$ 70,582.00 | \$ 11,477.00 | 83.74% |
| CAP2016-03 | LZ Xenon Gas | \$ 592,099.85 | \$ 594,168.00 | \$ 2,068.15 | 99.65% |
| CAP2017-02 | Ellison Option Asbestos Abatement | \$ 62,540.00 | \$ 100,000.00 | \$ 37,460.00 | 62.54% |
| Monthly Totals | | \$ 720,708.78 | \$ 770,018.00 | \$ 49,309.22 | 93.60% |

SD Science & Technology Authority
Operational CAPEX Budget
YTD FY2018 Actual vs Budget

| Project # | Project Description | August 2017 YTD | FY2018 Budget | \$ Over/UnderBudget | % of Budget | % Remaining |
|------------|-------------------------------------|-----------------|-----------------|---------------------|-------------|-------------|
| | | | | | | 100% |
| CAP2014-01 | Sanford Visitor Center Sign/Display | \$ 6,963.93 | \$ 5,268.00 | \$ (1,695.93) | 132.19% | -32.19% |
| CAP2014-05 | CASPAR Experiment Development | \$ - | \$ 61,630.00 | \$ 61,630.00 | 0.00% | 100.00% |
| CAP2016-02 | LZ Surface Facility Upgrades | \$ 80,954.34 | \$ 251,329.00 | \$ 170,374.66 | 32.21% | 67.79% |
| CAP2016-03 | LZ Xenon Gas | \$ 592,516.02 | \$ 4,100,000.00 | \$ 3,507,483.98 | 14.45% | 85.55% |
| CAP2017-02 | Ellison Option Asbestos Abatement | \$ 94,140.00 | \$ 258,933.00 | \$ 164,793.00 | 36.36% | 63.64% |
| | Totals | \$ 774,574.29 | \$ 4,677,160.00 | \$ 3,902,585.71 | 16.56% | 83.44% |

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DECLARATION OF SURPLUS PROPERTY

The South Dakota Science and Technology Authority (SDSTA) owns two (2) Palmer 30,000-gallon diesel fuel tanks that are stored on the Ellison Property between the Ellison boiler and the construction build shop. These items have no operational use and are no value to the SDSTA.

Having no further use for this property, I hereby declare the two Palmer fuel tanks to be Surplus Property. The SDSTA is currently seeking bids for the tanks.

Dated at Lead, South Dakota this 30th day of August, 2017

A handwritten signature in blue ink, appearing to read "Mike Headley".

Mike Headley
SDSTA Executive Director

Review of Updated Policy—Mr. Mike Headley

ITEM 9. REVIEW OF SDSTA POLICIES

Attached is the updated Leave Policy reviewed by legal counsel and recommended for approval.

Recommended Action:

Motion to approve updated Leave Policy, as presented.

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South Dakota Science & Technology Authority
Policies and Procedures Manual

SUBJECT: Leave Policy

NUMBER: 4:4

It is the policy of the South Dakota Science and Technology Authority (SDSTA) that all leave accruals shall commence from the employee's first date of service.

A. Vacation Leave:

1. Only full-time employees (including probationary full-time employees) will accumulate leave credits of 4.62 hours per bi-weekly pay period and may accumulate a maximum of twice the annual accrual. When an employee completes 15 years of service, the employee will receive 6.16 hours of leave credits per bi-weekly pay period, and may accumulate a maximum of twice the annual accrual. Vacation leave may be granted for vacation or to supplement other permitted and authorized leaves of absence.
2. Salaried employees will not be required to use vacation leave while traveling when the purpose of the trip is specifically for SDSTA business. When SDSTA business is incidental to the trip, vacation leave will be required.
3. Upon retirement or resignation, only full-time employees with 180 days of continuous service will be paid for accumulated vacation leave. Vacation cannot be used to extend employment beyond the last actual day of work.

B. Sick Leave:

1. Full-time employees accumulate sick leave credits of 4.32 hours per bi-weekly pay period without a maximum limitation. Sick leave may be granted for personal illness or disability, pregnancy of the employee or the employee's spouse, exposure to a contagious disease that would endanger the health of co-workers, eye and dental care, required medical examinations, counseling or treatment at approved centers for alcohol or drug abuse or psychiatric care. There is no minimum period of employment before sick leave may be used. **If an employee gives notice of resignation and uses any sick leave hours during the notice period, a doctor's note will be required before the employee is compensated for time otherwise compensated for as sick leave.**

C. General provisions for the accumulation and use of vacation and sick leave:

1. Effective June 23, 2011, for all new hires, accumulated hours of sick leave can be carried over from the State of South Dakota to the SDSTA only at the discretion of the Executive Director. With approval, only those hours that have not been paid out by the State of South Dakota will be credited as a beginning balance at the SDSTA. Documentation to verify hours not paid by the state must be provided in writing to the SDSTA. These hours will be used only after hours accrued through employment with the SDSTA have been used.

2. Requests for leave must be submitted to the employee's supervisor in advance and in writing. When the circumstances do not permit the prior submission of requests for leave, the request must be submitted as soon as is conveniently possible upon the employee's return to work.
 3. Employees terminated during the probationary period will not be paid accrued vacation leave.
 4. Employees may not use more vacation leave than they have accumulated.
 5. Requests for leave other than sick leave must be approved by the employee's immediate supervisor prior to the requested departure time.
 6. Employees must notify their supervisor of illness prior to the start of their work shift.
 7. Any time absent from the job without prior authorization or notification may at the supervisor's discretion be considered absence without leave, for which the employee may not use sick or vacation leave and will not be paid. Unauthorized or unreported absences may be cause for disciplinary action.
 8. Upon an employee's resignation, retirement, or dismissal from employment because of reduction in staff, 25 percent of accumulated sick leave, up to a maximum of 480 hours, will be paid to such employee but only if the employee has been employed with the SDSTA continuously for at least 7 years, measured from the first date of employment. The accumulated leave will be paid at the pay rate as of the employee's last date on the payroll. In the case of dismissal other than a reduction in staff, no payment for accumulated sick leave will be made. For the purpose of this subsection, employment with the State of South Dakota immediately preceding employment with the SDSTA shall count toward the 7-year requirement for payment of accumulated sick leave.
- D. Personal Leave: If necessary, full-time employees may use up to 40 hours per year (state fiscal year, July 1–June 30) of accumulated sick leave for personal leave. The leave may be used for:
1. A death in the immediate family (defined as father, mother, spouse, children, mother-in-law, father-in-law, son-in-law, daughter-in-law, brothers, sisters, grandparents, grandchildren, step-children, step-parents or foster children).
 2. The temporary care of members of the immediate family.
 3. The birth or adoption of a child.
 4. Volunteer police or rescue work.
 5. A call to active duty of military reserve or National Guard members.
- E. Family and Medical Leave Act ("FMLA"): The Family and Medical Leave Act of 1993 provides eligible employees with up to 12 weeks of unpaid, job-protected family and medical leave ("FML") during a calendar year for certain family and medical reasons or up to 26 weeks for a family caregiver of an injured or ill service member. Employees are eligible if they have worked for at least one year and for 1,250 hours over the previous 12 months.

1. Reasons for Taking Leave. FML must be granted for any of the following reasons:
 - a. To care for the employee's child after birth or placement for adoption or foster care (the employee is eligible to use this leave anytime within 12 months of the birth or placement);
 - b. To care for the employee's spouse, son or daughter (who is under eighteen years old, unless the son or daughter is not capable of self-care due to mental or physical disability), or parent, who has a serious health condition;
 - c. For a serious health condition that makes the employee unable to perform the employee's job;
 - d. Due to circumstances arising out of the fact that a covered military member (a spouse, son, daughter or parent) is on active duty or called to active duty status (e.g.: short- notice deployment, military events and related activities, childcare and school activities, making financial and legal arrangements, counseling, rest and recuperation, and post-deployment activities); or
 - e. To care for a family member (spouse, son, daughter, parent or next of kin) who incurred a serious injury/illness as a result of active military service (up to 26 weeks combined FML leave in a single 12-month period).
2. Paid Versus Unpaid Leave –
 - a. Non-Worker's Compensation: Employees are required to use their paid leave, up to a maximum of 12 weeks, prior to taking leave under FML. FML will follow consecutively for an additional 12 weeks (and up to 26 weeks for a family caregiver of an injured or ill service member). If the employee has less than 12 weeks of paid leave available, the FML period will start once the paid leave is exhausted. If the employee has paid leave remaining available after the initial 12 weeks required to be used, the employee may use the remaining available paid leave during the FML period. To use paid leave before or during the FML period, the employee must have leave available and must meet all the leave requirements of that particular type of paid leave; for example, sick leave can only be used for the employee's *own* illness.
 - b. Worker's Compensation: Employees receiving temporary partial disability or temporary total disability benefits may take up to 10 hours of paid leave per week in addition to their worker's compensation benefits; provided, however, that the sum of the net (after payroll deductions) paid leave and workers compensation benefits may not exceed the net (after payroll deductions) salary to which the employee would be entitled if the employee were not receiving worker's compensation benefits. If the condition giving rise to the payment of workers compensation benefits constitutes a qualifying serious illness or injury under FML, then the absence shall be deemed leave under FML and the employee shall be so notified in writing. If after the FML 12-week period, the employee is

unable to return to work, the employee's job is no longer protected pursuant to the FML.

3. Advance Notice and Medical Certification – Except as otherwise provided herein, Employees must provide advance notice of request for FML and appropriate proof of need for leave relating to a medical condition. Leave may be denied or delayed if these requirements are not met. The employee ordinarily must provide 30 days advance notice when the leave is foreseeable. In other circumstances, the notice must be given as soon as practicable. The SDSTA may require medical certification to support a request for leave because of a serious health condition, second or third opinions, periodic recertification, periodic reports regarding the employee's status and intent to return to work, and a fitness for duty report to return to work. Failure to provide this information may result in the denial of leave or other disciplinary action.
 4. Job Benefits and Protection:
 - a. During FML, the SDSTA will maintain the employee's health insurance coverage at the same cost to the employee as if the employee was on the job. Any other benefits for which the employee may be eligible will also be maintained, but the employee shall remain responsible for the usual cost of such benefits. If the employee is on leave without pay, the employee must contact the Human Resources Office to make arrangements for the timely payment of premiums.
 - b. Upon return from FML, employees other than certain highly-compensated employees will be restored to their original position or a position with equivalent pay, benefits and other employment terms.
 - c. The use of FML will not result in the loss of any employment benefit that accrued prior to the start of an employee's leave.
 - d. The SDSTA may recover its share of insurance premiums if the employee fails to return after taking leave under certain circumstances.
 5. Failure to Return to Work – If an employee fails to return to work after FML is exhausted, the employee may be subject to disciplinary action or termination due to inability to perform the essential functions of the job.
 6. To the extent any provision of this Section E is inconsistent with the terms of the Family and Medical Leave Act as applicable at the time of the FML, the terms of the Family and Medical Leave Act shall govern.
 7. Within five days of a request for FML leave or when SDSTA acquires knowledge that leave may be for an FML-qualifying reason, the SDSTA shall give persons whose leave is deemed FML leave eligibility notice and rights and responsibilities notice as required by FML.
- F. Court and Jury Leave: Full-time and probationary employees are eligible for court and jury leave. The employee shall immediately notify the employee's supervisor if the employee expects to be absent from work due to the court and jury obligations. Absences will be administered as follows:
1. Testifying in official capacity – If the employee is subpoenaed by either party to testify in any civil or criminal proceeding because of the employee's official

capacity or is instructed by the supervisor to testify in an official capacity without being subpoenaed, the employee shall receive the employee's regular salary without loss of leave credits and may receive actual expenses according to state rates, but may not receive witness fees. The employee's supervisor and the SDSTA shall determine if the employee is testifying in an official capacity.

2. Subpoenaed to testify in non-official capacity – If an SDSTA employee is subpoenaed to testify in court in a non-official capacity and is not a party to the case, the employee shall receive the employee's regular salary from the SDSTA without loss of leave credits for the time spent testifying during regular working hours and may receive in accordance with SDCL 19-5-1 or any comparable federal law, witness fees and mileage from the party who issued the subpoena. However, the employee may not take court and jury leave for travel time or time when the employee is not reasonably expected to testify regardless of whether the employee has been subpoenaed for that period of time. If the employee is absent from the workplace while not testifying, the employee must use vacation leave or leave without pay. This leave must be requested in advance and is subject to the supervisor's approval.
 3. Party or witness not subpoenaed to testify – If an employee is a party to or witness who has not been subpoenaed, the employee must use vacation leave or leave without pay. This leave must be requested in advance and is subject to the supervisor's approval.
 4. Service on jury – If an SDSTA employee is summoned to serve on a jury, the employee shall receive the employee's regular salary without loss of leave credits for the time spent on jury duty during regular working hours and shall be entitled to retain the per diem and mileage provided for by SDCL 16-13-46 or any comparable federal law.
 5. The Executive Director is the final arbiter of whether an employee is eligible for court and jury leave.
- G. Military Training Leave: Full-time employees are entitled to military training leave of up to 15 days per calendar year. Employees requesting military training leave for must obtain a written certification from the commander of their reserve or National Guard unit indicating dates of the training period. This notice is to be submitted to the employee's supervisor at least 15 calendar days prior to the date of the employee's departure for training.
- H. Leave of Absence Without Pay: Prior permission must be obtained from the employee's supervisor to take a leave of absence without pay. If an employee has paid leave accumulated, the employee must use that before leave without pay is granted (see Policy 2:15 Absenteeism and Tardiness). While on leave without pay, employees will not accumulate leave credits and they must make provisions to pay for their own voluntary payroll deductions.
- I. Absence Without Leave: Unauthorized and unreported absences may result in a deduction of pay and may be cause for disciplinary action. Employees must report the reason for any absence to their supervisor as soon as possible.

J. Exceptions:

1. The Executive Director may grant specific employees leave in addition to or different than that provided for in this policy if the Executive Director deems such changes necessary to hire or retain a key employee. All exceptions will be made in writing.
2. Vacation leave granted by the Executive Director may be accumulated to a maximum of twice the annual accrual.

Executive Session—Chairperson Casey Peterson

Meeting closed to public during executive session. See recommended motion below.

Recommended Action:

Motion to enter executive session to discuss personnel matters and to consult with legal counsel concerning contractual and legal matters.

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Report from Executive Session—Chairperson Casey Peterson

See recommended motion below...

Recommended Action:

“The board consulted with legal counsel concerning contractual and legal matters. No action was taken.”

OR

...as discussed and stated otherwise

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Confirm date and time of next meeting—Chairperson Casey Peterson

The next board meeting will be held on Thursday, December 14, beginning at 9:00 AM (Mountain Time). Lunch will be provided.

| 2017 Regular Board Schedule | |
|------------------------------------|-------------------------------|
| March 16, 2017 | 08:00 am (MT) |
| June 22, 2017 | 08:00 am (MT) |
| September 21, 2017 | 08:00 am (MT) |
| December 14, 2017 | 09:00 am (MT), lunch provided |

*South Dakota Science and Technology Authority
Sanford Underground Research Facility
Education & Outreach Building (large conference room)
630 E. Summit Street, Lead SD 57754
Questions? Contact Mandy Knight, mknight@sanfordlab.org
Direct Line: 605.722.4022, Cell: 605.641.0475*

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Board Comments—Chairperson Casey Peterson

1. Dr. Ani Aprahamian
2. Mr. Paul Christen
3. Mr. Dana Dykhouse, Vice-Chairperson
4. Ms. Pat Lebrun, Secretary-Treasurer
5. Mr. Casey Peterson, Chairperson
6. Dr. Jan Puszynski, Ex-officio member
7. Mr. Ron Wheeler, Vice-Chairperson
8. Dr. Robert Wilson

Recommended Action:

None.

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