

South Dakota Science and Technology Authority

**Board Meeting
December 14, 2023**



630 East Summit Street
Lead, SD 57754



Call to Order—Chairperson Casey Peterson

1A. Call Roll

Dr. Ani Aprahamian
Mr. Dana Dykhouse
Dr. Chris Fall
Ms. Pat Lebrun
Mr. Roger Musick
Mr. Casey Peterson
Mr. Ron Wheeler
Dr. Laurie Nichols, ex-officio member
Dr. James Rankin, ex-officio member

1B. Introduce guests—ask to announce name and affiliation

1C. Public comment form (submit forms prior to start of board meeting)

Procedure for Public Comment Periods

Pursuant to SDCL 1-25-1 as amended by House Bill 1172 in the 2018 Legislative Session the procedure for conducting public comment periods during meetings of the South Dakota Science and Technology Authority (SDSTA) shall be as follows:

The chair of the SDSTA shall reserve a period for public comment, limited at the chair's discretion, at each meeting.

Before the beginning of the meeting, all persons who wish to make comments during the comment period shall indicate their desire to do so on a form that will be provided by the Executive Director. The form shall indicate the person's name, city of residence and generally describe the matter or matters on which the person wishes to comment.

The amount of time allocated to each interested person who wishes to make comments will be determined at the chair's discretion at each meeting.

Comments must be limited to matters which are under the jurisdiction of the SDSTA.

All persons making public comments at meetings of the SDSTA must do so in a manner that maintains civility. Comments which contain offensive language or profanity will not be tolerated.

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Approve Agenda—Chairperson Casey Peterson

Attached is the SDSTA Board agenda for the December 14, 2023 meeting.

See recommended motion below.

Recommended Action:

Motion to approve agenda as presented.

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AGENDA
South Dakota Science and Technology Authority
Meeting of the Board of Directors
Location: Elevate Rapid City
David Lust Accelerator Building
Executive Boardroom, 2nd Floor
18 E. Main Street, Rapid City, South Dakota
Thursday, December 14, 2023 at 9:00 AM (MT)

Public (Open) Session: 1-669-900-6833, Meeting ID: 605 722 4000, Passcode: 8650, <https://zoom.us/join>

SDSTA Mission: *We advance world class science and inspire learning across generations.*

NOTICE: Members of the public may listen to the meeting by calling 1-669-900-6833 and entering Meeting ID code: 605 722 4000. Please announce your name and affiliation after joining then mute your phone.

Title	Report	Recommendations
1. Call to order A. Call roll B. Introduce guests C. Public comment form	-- Chair Casey Peterson	1A. Confirm quorum by calling roll 1B. Ask guests to announce their name/affiliation 1C. Ask if there are any public comment form(s) submitted and announce time will be given at the end of the agenda to discuss
2. Approve agenda	-- Chair Casey Peterson	Motion to approve agenda
3. Approve minutes	-- Chair Casey Peterson	Motion to approve the September 21, 2023 minutes
4. Conflict of interest disclosure	-- Mr. Tim Engel	Informational
5. Conflict of interest disclosure and waiver under SDCL CH. 3-23	-- Mr. Tim Engel	"Motion to approve or deny" (as appropriate)
6. Report from Audit Committee A. Audit Committee meeting update B. Eide Bailly LLC audit update, informational C. SDSTA Audit Report-fiscal year ended June 30, 2023 discussion	-- Chair Casey Peterson -- Ms. Pat Lebrun	6A. Reference board packet for audit committee minutes and audit report 6B. Informational 6C. Motion to accept Audit Committee Report and to request Audit Report approval at the next regularly scheduled board meeting per statute
7. Contract between SDSTA and TMI for 4850L bypass drift	-- Mr. Mike Headley	Motion to approve contract between SDSTA and TMI to perform 4850L bypass drift work as presented, to authorize the executive director and chairperson of the board, in consultation with legal counsel, to negotiate the final terms of the contract, and to authorize the chairperson to sign the contract

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.

**Meeting of the Board of Directors
Thursday, December 14, 2023**

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| 8. | Financial Report | -- Mr. Mike Headley | |
| | A. Amended FY2024 budget | -- Mr. Terry Miller | <i>8A. Motion to approve the SDSTA amended FY2024 budget as presented</i> |
| | B. October Financial statements | -- Mr. Terry Miller | <i>8B. Motion to accept report as presented</i> |
| 9. | SURF Foundation update | -- Ms. Michelle Kane | <i>Informational</i> |
| 10. | Report from Executive Director | -- Mr. Mike Headley | |
| | A. Declarations of Surplus—four (4) | | <i>Informational</i> |
| | B. SDSTA quarterly update | | <i>Informational</i> |
| | C. Black Hills Underground Frontier Consortium Memorandum of Understanding (MOU) | | <i>Motion to approve the Black Hills Deep Underground Frontier Consortium MOU and to authorize the executive director and chairperson of the board, in consultation with legal counsel, to negotiate the final terms of the MOU, and to authorize the Executive Director to sign the MOU</i> |
| | D. Education & Outreach (E&O) update | -- Ms. Nicol Reiner | <i>Presentation
Motion to accept executive director's report</i> |
| 11. | Approval of updated SDSTA policy | -- Mr. Mike Headley | <i>Motion to approve updated SDSTA Records and Retention Policy as presented</i> |
| 12. | Discuss registration of lobbyists | -- Mr. Tim Engel | <i>Motion to designate Mike Headley, Casey Peterson, Tim Engel and Doug Abraham as lobbyists for the SDSTA for the 2024 Legislative Session</i> |
| 13. | 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 and legal matters—SDCL 1-25-2(1), (3) and (4); 19-19-502</i> |
| 14. | Report from executive session | -- Chair Casey Peterson | <i>"The board consulted with legal counsel concerning contractual and legal matters. No action was taken."
OR
...as discussed and stated otherwise</i> |
| 15. | Confirm date, time and location of next meeting; announce 2024 board schedule | -- Chair Casey Peterson | <i>2024 schedule, Thurs at 8:00am (MT)</i>
<ul style="list-style-type: none"> • <i>March 21</i> • <i>June 20</i> • <i>September 19</i> • <i>December 12</i> |

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**Meeting of the Board of Directors
Thursday, December 14, 2023**

16. Public comments -- Chair Casey Peterson
17. Board comments -- Chair Casey Peterson
18. Adjourn -- Chair Casey Peterson *Motion to adjourn*

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 January 7, 2022	December 9, 2027
2.	Mr. Dana Dykhous, Vice-Chair	Re-appointed August 15, 2020	August 14, 2026
3.	Dr. Chris Fall	Appointed December 1, 2021	August 8, 2027
4.	Ms. Patricia Lebrun, Secretary-Treasurer	Re-appointed August 8, 2022 SDCL 1-7-1.1	August 8, 2028
5.	Mr. Roger Musick	Reappointed August 8, 2022 SDCL 1-7-1.1	August 8, 2028
6.	Mr. Casey Peterson, Chair	Re-appointed December 1, 2021	August 8, 2027
7.	Mr. Ron Wheeler	Re-appointed April 28, 2020	April 9, 2026
8.	<i>Dr. Laurie Nichols, ex-officio member</i>	<i>Black Hills State University (BHSU) President</i>	
9.	<i>Dr. James Rankin, ex-officio member</i>	<i>South Dakota School of Mines & Technology (SD Mines) President</i>	
	Committees and Members (2023-2024)		
	Audit Committee Members (Selected in June):	Nominating Committee Members (Selected in March):	
	➤ Pat Lebrun-Chair	➤ Dana Dykhous	
	➤ Dana Dykhous	➤ Roger Musick	
	➤ Roger Musick		
	➤ Casey Peterson, ex-officio		
	2024 Board Schedule		
	Thursday, March 21, 2024	8:00 am (MT)	SURF E&O Bldg
	Thursday, June 20, 2024 — Annual Meeting	8:00 am (MT)	SURF E&O Bldg
	Thursday, September 19, 2024	8:00 am (MT)	SURF E&O Bldg
	Thursday, December 12, 2024	8:00 am (MT)	SURF E&O Bldg

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Approve Minutes—Chairperson Casey Peterson

Attached are the September 21, 2023 Minutes for approval.

See recommended motion below.

Recommended Action:

Motion to approve the September 21, 2023 Minutes as presented.

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South Dakota Science and Technology Authority Board of Directors
Meeting Minutes
Thursday, September 21, 2023
Sioux Falls, South Dakota

The Board of Directors of the South Dakota Science and Technology Authority (SDSTA) convened at 9:00 a.m. (CDST) on Thursday, September 21, 2023, at the fourth-floor executive boardroom of the Washington Pavilion, 301 S. Main Ave, Sioux Falls, South Dakota. A conference number was posted on the agenda with an invitation for members of the public to participate in the meeting by telephone or videoconference.

MEMBERS OF THE BOARD IN ATTENDANCE

Vice Chairperson Dana Dykhouse (in person)
Dr. Chris Fall (by videoconference)
Secretary/Treasurer Patricia Lebrun (in person)
Mr. Roger Musick (in person)
Dr. Laurie Nichols (in person)
Chairperson Casey Peterson (in person)
Mr. Ron Wheeler (by phone)

MEMBERS OF THE BOARD ABSENT

Dr. Ani Aprahamian
Dr. James Rankin, ex-officio

SDSTA STAFF PRESENT DURING ALL OR PART OF THE MEETING

Mr. Tim Engel, SDSTA General Counsel (in person)
Mr. Mike Headley, SDSTA Executive Director (in person)
Dr. Jaret Heise, SDSTA Director of Science (by videoconference)
Ms. Michelle Kane, SDSTA SURF Foundation Director (in person)
Ms. Mandy Knight, SDSTA Administrative Services Manager SDSTA (in person)
Mr. Will McElroy, SDSTA Deputy Director for Operations (by videoconference)
Ms. Anne Metli, SDSTA Director of Communications (in person)
Mr. Terry Miller, SDSTA Chief Financial Officer (in person)
Mr. Mike Ray, SDSTA Media Relations Manager (in person)
Ms. Constance Walter, SDSTA External Affairs Project Director (in person)
Ms. Juliet Winger, SDSTA Communications Marketing Specialist (by phone)
Ms. Deb Wolf, SDSTA Director of Outreach and Culture SDSTA (in person)
Ms. April Yenglin, SDSTA SURF Foundation Support Specialist (by videoconference)

ALSO PRESENT DURING ALL OR PART OF THE MEETING

Mr. Patrick Malone, Dakota Gold Corp. Chief Sustainability Officer (in person)
Ms. Julie Olson, SURF Foundation Board Chairperson (in person)
Dr. Ben Saylor, BHSU/Sanford Science Education Center Director/ Professor (by videoconference)
Dr. Barbara Szczerbinska, SURF Foundation Board Member (by videoconference)
Mr. Joshua Willhite, Fermilab LBNF Far Site Conventional Facilities (FSCF)-Building and Site Infrastructure (BSI) Project Manager

ITEM 1. CALL TO ORDER

ITEM 1A. ROLL CALL

Chairperson Casey Peterson called the meeting to order at 9:00 a.m. (CDST). Roll call was held, and a quorum declared.

Mr. Dana Dykhouse, Ms. Pat Lebrun (joined at 9:10 a.m. in person), Chairperson Peterson, Mr. Roger Musick and Dr. Laurie Nichols, were present in person. Dr. Chris Fall joined at 9:01 a.m. via videoconference. Mr. Ron Wheeler joined by phone. Dr. James Rankin and Dr. Ani Aprahamian were absent.

ITEM 1B. INTRODUCE GUESTS

Chairperson Peterson asked audience members to introduce themselves. He said if anyone from the audience had any questions or comments for the board to address, to please complete the public comment form located at the sign-in table and time will be given at the end of the agenda to discuss.

ITEM 2. APPROVE AGENDA

Chairperson Peterson asked if there were any modifications to the agenda. Hearing none, he asked for a motion to approve the agenda as presented.

Motion by Vice Chairperson Dykhouse and seconded by Mr. Musick to approve the agenda as presented. Motion passed unanimously.

ITEM 3. APPROVE MINUTES

Chairperson Peterson asked if there were any comments on the June 22, 2023 Minutes. Hearing none, he asked for a motion to approve the minutes.

Motion by Mr. Musick and seconded by Mr. Wheeler to approve the June 22, 2023 Minutes as presented. Motion passed unanimously.

ITEM 4. GENERAL CONFLICT OF INTEREST DISCLOSURE

SDSTA General Counsel Mr. Tim Engel invited members of the board to disclose anything that might be construed to be a conflict of interest with respect to items under consideration at today's meeting.

No conflicts of interest were disclosed.

ITEM 5. CONFLICT OF INTEREST DISCLOSURE AND WAIVER UNDER SDCL CH. 3-23

Mr. Tim Engel said, regarding disclosures and waivers under SDCL Ch. 3-23, he polled the board members prior to the meeting and nothing requiring disclosure was reported to him.

ITEM 6. APPROVE SDSTA BY-LAWS AS AMENDED

Chairperson Peterson welcomed Dr. Laurie Nichols, President of Black Hills State University (BHSU), to the SDSTA board as an ex-officio member.

Mr. Tim Engel said proposed amended and restated by-laws were included in the board packet; he reviewed the proposed changes in Article II, Section 1 to acknowledge the addition of the President of BHSU to the board. Mr. Engel recommended the adoption of the amended and restated by-laws.

Motion by Mr. Wheeler and seconded by Mr. Musick to adopt the SDSTA By-laws as amended. Motion passed unanimously.

ITEM 7. SURF FOUNDATION UPDATE

Ms. Michelle Kane, Director of the SURF Foundation, introduced three main goals for the upcoming fiscal year ending September 30, 2024:

- Develop a nationwide marketing plan and fundraising campaign for the Institute of Underground Science at Sanford Underground Research Facility (SURF).
- Launch a publicity campaign for the Institute for Underground Science at SURF.
- Raise funds for the construction of the Sacred Circle Garden.

She emphasized the Foundation has two primary goals related to the Institute and its visionary objectives. One of these goals involves painting a clear vision, which is described as follows: “To establish a global nexus for advancing discovery in underground science, the Institute aims to build a space that empowers scientists and educators through innovation and collaboration.” Furthermore, she shared that the long-term vision, set for 2035, is to see this physical space fully realized.

In the summer of 2023, the Institute hosted its inaugural session with the Center for Theoretical Underground Physics and Related Areas (CETUP*), bringing together 68 scientists, researchers and graduate students. While CETUP* has been held at SURF before, this marked the first time it was officially affiliated with the Institute. Over the course of four weeks, these participants collaborated intensively, developed future strategies, and authored scholarly papers. This endeavor proved to be a success in nurturing an intellectual community, building credibility for the Institute and paving the way for future success and growth.

Ms. Kane outlined some of the proposed programming supporting the Institute for FY2024, to include:

- CETUP* 2024, a five-week science symposium scheduled from June 17 to July 19 in Lead, SD.
- Monthly Science Talks commencing in March 2024.
- Nobel Day Celebration is set for December 14, 2023, at Elevate Rapid City, marking the public launch of the Institute.
- Evaluation of various initiatives, including Statewide Teacher Professional Development Conference, Internship and Davis Bahcall Scholarship Programs, Artist-in-Residence (AiR) Program, Outreach Opportunities, and additional initiatives as the plan evolves.

She discussed the upcoming three years, emphasizing alignment with existing projects at SURF, including the Long-Baseline Neutrino Facility/Deep Underground Neutrino Experiment (LBNF/DUNE) to amplify successful milestones and press attention. Key strategies include:

- Nationwide Marketing Plan and Fundraising Strategy.
- Grants Calendar.
- Alumni Program Strategy.
- Donor Relationship Strategy.
- Higher Education Strategy.
- Technology Partnership Strategy.
- Internal Staff and Board Engagement Strategy.
- Incorporation of Institute messaging into SURF's Public Facing Events.
- Mobilizing the Lead community to become advocates for the Institute and SURF, with collaboration from Ms. Kelly Kirk, Director of the Sanford Lab Homestake Visitor Center (SLHVC).

Next was an overview of progress of the Sacred Circle Garden:

- Phase 1 construction by RCS Construction, Inc. is expected to conclude in October of 2023.
- A grant for Native arts installation and Phase 2 assembly area is submitted, with a decision expected by late 2024.
- A successful kick-off event for the Garden took place on August 22.
- Ongoing education and outreach programming planning is underway, with an anticipated launch in Spring 2024, featuring "Root Talks" in the summer.
- Upcoming participation at the Northern Hills Master Gardeners Conference in Spearfish on September 23 is planned, showcasing the intentional design and positive programming through pictures.

Ms. Kane said that Neutrino Day 2023 was a success, reaching fundraising goals, and she is moving forward with fundraising for 2024. To continue to build awareness of the SURF Foundation, a LinkedIn

page will be launched in October. This will help with credibility, reputation, and a space to share Foundation fundraising and program efforts.

Ms. Kane introduced Ms. Constance Walter, who has been with SURF for over a decade as the SDSTA Communications Director and is now the new SDSTA External Affairs Project Director.

Important dates for the SURF Foundation over the next three months:

- September 23, SURF Day at Washington Pavilion – Sioux Falls
- September 23, Northern Hills Master Gardeners Statewide Conference – Spearfish
- October 3, Spearfish Kiwanis – Spearfish
- October 12, SD Biotech Annual Meeting – Sioux Falls
- October 19, Women in Business Annual Conference – Box Elder
- October 24, Institute Lunch & Learn at SURF – Lead
- November 7, Women in Networking – Spearfish
- December 14, Nobel Day Celebration and Public Launch of the Institute – Rapid City
- December 14, SURF Foundation board meeting – Elevate Rapid City

When asked about the significance of commencing the capital campaign in 2028, Ms. Kane explained the campaign is conceived as a five-year initiative. The specific timing will be determined by developments in the upcoming years, guiding the decision on when and how to launch the campaign. Mr. Headley added there are existing successful programs that can be utilized to generate additional funds, thereby aiding the Institute and reallocating resources to advance its growth.

During the board meeting, Dr. Nichols asked for clarification regarding the timeline for the Sacred Circle Garden project. Ms. Kane clarified that construction is scheduled to be completed by the end of October, followed by planting and programming starting in the spring of 2024.

Chairperson Peterson introduced Dr. Barbara Szczerbinska, a SURF Foundation board member, to share her insights on the Institute. Dr. Szczerbinska emphasized that CETUP* brings scientists from around the world together for several weeks during the summer, and the Institute would enable this collaboration year-round. She stressed the importance of standing up the Institute as a national and international leader in underground science, citing examples of dedicated institutes in other fields supported by National Science Foundation (NSF) grants and other funding sources. Dr. Szczerbinska also highlighted the need for a Program Manager with scientific expertise, fundraising efforts, and someone dedicated to keeping the project on schedule and emphasizing the role's importance in managing scientists and programming. She urged that the Institute be stood up soon, as there are many potential competitors.

Chairperson Peterson thanked Dr. Szczerbinska for her comments and passion.

Mr. Headley informed the board that the search for an Institute Program Manager did not yield a candidate, and they will be initiating the search process again. He also mentioned management is recruiting an Institute Director to focus on advocacy and fundraising, as well as developing scientific leadership and community contacts.

Chairperson Peterson asked if the budget included these positions. Mr. Headley explained that a portion of the existing budget already accounted for these roles. He further mentioned that during the forthcoming budget discussions, he would likely propose reallocating some additional funds in December to partially fund these two positions using SDSTA and Cooperative Agreement (CA) dollars. Mr. Headley stressed if this allocation contributes to enhancing connections with the science program and the wider community, it would be a practical and advantageous choice. He will provide an update on this matter in December.

ITEM 8. AUDIT COMMITTEE – REPORT UPDATE

Ms. Lebrun provided an update on the Audit Committee Charter review, noting that the committee convened to discuss potential changes. However, there were no changes to recommend at this time.

Following this, Ms. Lebrun handed the floor to Mr. Terry Miller for additional details. Mr. Miller began by mentioning that Eide Bailly has been engaged for this year's audit, and they have already commenced their work. He noted a substantial amount of information has been supplied to facilitate their review. While the initial phases of the audit have been conducted from their Colorado office, they are scheduled to conduct on-site work starting Monday (September 25). Mr. Miller expressed confidence that the audit would be concluded in early October, with results ready for presentation at the December board meeting.

Ms. Lebrun sought confirmation regarding whether this audit aligns with state requirements, and Mr. Miller confirmed that it indeed does. No action needed.

ITEM 9. FINANCIAL REPORT

ITEM 9A. FINANCIAL STATEMENTS

Mr. Miller began by referring the board members to the information provided in the SDSTA board packet, highlighting a few key points:

- July and August financials are complete.
- The report shows an overspend of \$1.3 million in the CA year-to-date.
- Several significant financial modifications have occurred, including a \$1.4 million funding modification for the deep well pump and the Yates Shaft, a \$608,000 funding modification for wage increases for infrastructure technicians, and an underrun of \$34,000 in the CA for August.
- Other financial items include an infrastructure improvement project modification for a \$4.5 million 3650 Level pumproom remodel, approval of \$2.1 million for the Yates Hoistroom replacement roof, and a significant increase in cash year over year due to the receipt of \$13 million from Senate Bill 35 for the underground expansion.
- The comparative balance sheet shows a substantial drop in xenon notes due to successful sales of xenon and the application of the sale proceeds to that debt.

Mr. Miller closed by reporting that the audit is currently underway and is expected to proceed smoothly.

Mr. Headley provided an explanation for the \$1.3 million expense overrun, attributing it to the necessity of allocating funds upfront for projects before receiving Department of Energy (DOE) funding. He clarified that these expenses can now be billed and redistributed as needed.

Mr. Wheeler sought an update on the potential government shutdown in Washington. In response, Mr. Headley outlined a plan for operations during any shutdown, and the determination of how long operations can be sustained with available cash. He noted Fermilab's actions regarding excavation construction would also influence the decision. The primary objective is to retain all staff without resorting to furloughs. Furthermore, scrutiny of purchases is underway to curtail unnecessary spending until the federal FY2024 funding is available.

Chairperson Peterson highlighted the current daily expenditure rate stands at approximately \$116,000.00, with an 80-day reserve. Mr. Headley clarified that this reserve includes a \$5 million line of credit at First Interstate Bank. He also pointed out that shutting down excavation incurs a standby charge, similar in cost to daily operations, amounting to roughly \$150,000.00 to \$200,000.00 per day.

ITEM 9B. INSURANCE UPDATE

Mr. Engel provided an update on compliance with the insurance requirements specified in the Property Donation Agreement (PDA). The PDA requires SDSTA to maintain a \$75 million commercial general liability policy. To fulfill these requirements, management has purchased two sets of policies: one for \$75 million to encompass all operations except LBNF/DUNE and another \$75 million policy dedicated to risks associated with LBNF/DUNE, termed an Owner's Interest Policy (OIP).

The previous Owners Interest Policy expired on August 1. A new policy, with a term of approximately three years, was timely bound. The three-year term coincides with the current and anticipated contracts with Fermilab hoist and shaft usage. He confirmed a new policy was successfully placed and noted there was a price increase.

He provided the following details:

- LBNF/DUNE OIP CGL insurance.
- Premium: \$2,262,051.40 + \$140,450 indirect = \$2,402,501.40 (FRA Logistics Support contract funds).
- Interest on a loan to pay the premium until reimbursement from Fermilab: \$79,848.83 (SDSTA funds).

Mr. Engel also explained, due to Fermilab's payment process requirements, SDSTA would cover the cost not paid upfront until April and should then be reimbursed by Fermilab. He emphasized this was the only viable option, and it was not due to anything SDSTA had done but rather the way Fermilab's processes were structured. He concluded his report by asking if there were any questions; there were none.

ITEM 9C. AMEND FY2024 BUDGET TO APPROVE PLANNED 4850L EXPANSION

Mr. Headley provided an update on budget items that needed to be addressed:

1. LBNF/DUNE OIP CGL Insurance:
 - Premium: \$2,262,051.40 + \$140,450.00 indirect = \$2,402,501.40 (FRA Logistics Support contract funds)
 - Interest: \$79,848.83 (SDSTA funds)
2. 4850L Lab Expansion:
 - Design: \$607,508.00
 - Long lead procurements: \$850,000.00
 - SDSTA labor: \$218,619.00
 - Materials: \$232,000.00
 - CGL Insurance: \$56,545.97
 - Indirect: \$280,900.00
 - Total cost: \$2,293,573.00
 - Previous allocation: \$800,000.00
 - Budget authority request: \$2,000,000.00 (4850L expansion funds)
3. Institute:
 - CETUP 2024: \$161,000 carryover from the summer 2023 program (SDSTA funds).

Mr. Headley explained after receipt of the \$13 million from the State of South Dakota it was made clear by DOE that any staff time or materials used for the underground expansion must be covered by state funds. Until the next Strategic plan and Particle Physics Project Prioritization Panel (P5) report are released, and there are actual experiments proposed for the space, DOE is not permitting the expenditure of cooperative agreement funds on the expansion.

Motion by Mr. Dykhouse and seconded by Mr. Musick to approve amended FY2024 budget. Motion passed unanimously.

Motion by Mr. Wheeler and seconded by Dr. Fall to approve the financial report as presented. Motion passed unanimously.

ITEM 9D. SD INVESTMENT COUNCIL LETTER

Mr. Miller provided a brief history, noting last year's earnings were \$102,000.00, while this year's earnings are expected to be around \$305,000.00. He attributed this increase to the Investment Council's improved performance compared to previous years. Last year, management used a 1.00% rate accrual for these earnings, and Ms. Lebrun suggested using a 1.75% rate this year. Mr. Dykhouse agreed with Ms. Lebrun's recommendation.

Motion by Mr. Musick and seconded by Mr. Dykhouse to accrue interest on SDSTA's funds with the Investment Council at 1.75%. Motion passed unanimously.

ITEM 9E. FISCAL YEAR END INVENTORY LISTING

Mr. Headley said there is an inventory list in the board packet, and Chairperson Peterson asked if there were any questions regarding the inventory list or the per diem. Mr. Miller reported that there was nothing new or noteworthy to mention, and there were no major changes. No questions were raised.

Chairperson Peterson noted that this information had been included in the previous financial report he had presented earlier, so there was no need for a separate motion. He also indicated that Items 9E and 9F would be addressed together.

ITEM 9F. FISCAL YEAR END PER DIEM LISTING

Addressed with Item 9E.

ITEM 10. REPORT FROM EXECUTIVE DIRECTOR

ITEM 10A. DECLARATIONS OF SURPLUS (2)

Mr. Headley informed the board there were two items listed for surplus, which were included in the board packet. He then inquired if anyone had any comments or questions regarding these surplus items. It was reported that there were no questions.

ITEM 10B. SDSTA QUARTERLY UPDATE

Mr. Headley presented the following highlights:

- Over two years of work without a lost-time injury, totaling over 870,000 hours.
- LBNF excavation is approximately 80% complete, with planning for outfitting, cryostat installation, and detector installation ongoing.
- Yates Shaft maintenance has reached the 1575L, with plans to reach the 4100L by July 2024.
- Completed the first annual independent ISO compliance audit with zero non-conformances.
- Successful CETUP* workshop held in June and July, serving as a prototype for future Institute programs.
- 4850L expansion is at 30% design completion, with 60% expected by the end of September and excavation starting in January.
- The new Oro Hondo ventilation fan is in the final commissioning stages and can serve as a full backup.
- Hosted a successful Congressional staff site visit on August 23.
- Achieved a record-breaking "best Neutrino Day yet" with over 2,000 visitors and more than 200 volunteers.

- Education and outreach had another successful year, supporting students and teachers in SD, reaching over 18,000 teachers.
- Efforts are underway to promote SURF in South Dakota through advertising at the Rapid City Regional Airport and partnerships with institutions like the Washington Pavilion.

Dr. Fall asked about the interaction between DOE and SURF regarding the expansion project and the quality of these interactions, considering it involves both entities. Mr. Headley reported the interactions have been highly productive. Regular meetings have facilitated discussions and addressed concerns related to both projects.

Mr. Headley delved into excavation plans, noting alterations from the original strategy and explaining logistical aspects like rock movement and hauling routes.

Ms. Lebrun raised a question about how the new fans might impact evacuation underground, given the enhanced ventilation capacity. Mr. Headley clarified that both fans operate with online power and that sufficient natural airflow exists without them. He also emphasized the importance of updating the pumphouses.

Transitioning to the Sacred Circle Garden, Mr. Headley displayed photos of the progress and discussed the challenges of achieving the desired concrete colors.

Chairperson Peterson sought clarification on the arrangement with Kiewit for groundskeeping, snow removal, and portable toilets. Mr. Headley explained that while SDSTA was initially considered for these responsibilities, discussions with Fermilab and insurance considerations led to Kiewit assuming these duties.

Chairperson Peterson then requested an update on the timeline and the cost for work on the Yates Shaft. Mr. Headley outlined a two-phase approach, with the first phase being early works akin to the Ross Shaft and spanning approximately three years. The second phase, commencing in 2027 and extending for three years, is a more comprehensive project estimated at around \$170 million with contingencies, adhering to DOE capital projects 14.3 regulations due to its significant funding involvement.

ITEM 10C. SCIENCE UPDATE

SDSTA Science Director Dr. Jaret Heise started with an update on underground laboratories around the world. Then he gave an update on science support at SURF:

- SURF User Association Executive Committee (UAEC), established in 2020, has been functioning smoothly. The Charter of the organization has undergone a few updates and is doing well.
- High Energy Physics and Snowmass organized a long-term vision workshop aimed at creating a strategic plan for high-energy physics. The workshop was successful. Another meeting is scheduled for 2024.
- The Science Program Advisory Committee (SPAC), established in 2021, is functioning well. It consists of thirteen members. It was mentioned the committee is scheduled to meet next week.
- The SURF Strategic Advisory Committee (SSAC) has been working on forming closer ties with the SPAC.
- CETUP* Hosting: In 2023, SURF hosted CETUP* and it was successful.

Dr. Fall inquired about representation in quantum research, and Dr. Heise indicated there is representation from the Massachusetts Institute of Technology (MIT) and some interest from South Dakota Mines in Rapid City. Additionally, Dr. Fall asked about fiber infrastructure, and Dr. Heise confirmed that there is fiber optic infrastructure running underground to most locations.

Dr. Heise said the three conferences in 2022 had good attendance, and CETUP* in 2023 was also successful.

Dr. Heise gave an update on some of the research at SURF:

- LUX-ZEPLIN (LZ) has published its first paper in the Physical Review Letters journal.
- MAJORANA DEMONSTRATOR (MJD) Double Beta ($\beta\beta$) Decay using Tantalum has wrapped up and submitted the TA-180 paper to PRL.
- Large Enriched Germanium Experiment for Neutrinoless $\beta\beta$ Decay (LEGEND) 1,000 kg double beta decay experiment is moving ahead.
- Compact Accelerator System for Performing Astrophysical Research (CASPAR) is looking for processes inside stars had to shut down due to excavation but is now ramping up to start again and has been funded by Notre Dame; other funding is also possible.
- Geothermal and Geology experiments have been ongoing since 2016 and interest in experiments in the area have increased.
- Background Counting performed by BHSU and housed at the Davis Campus is still active and supporting ongoing experiments.
- Two dual crystal systems are active at the Davis Campus.

There were no questions or comments.

ITEM 10D LBNF/DUNE UPDATE

LBNF FSCF Project Manager Mr. Josh Willhite provided updates on various aspects of the LBNF project:

Brow Preparation:

- Excavation of the Ross Brow, where the shaft meets the 4850L, is scheduled for construction from October to December.
- A small excavation was completed at the "back" (West) of the shaft as a secondary access.
- A steel structure will be installed on the "front" (East) and side (North) to enable normal access for personnel.
- Three alternate routes for access to the Davis area during this period have been identified, with adjustments based on ongoing work.
- Total excavation completed to date stands at 78.6%.

Far Site Conventional Facilities-Building and Site Infrastructure (FSCF-BSI) Bidding Status:

- The 28 planned packages have been consolidated into approximately 20.
- Proposals have been received for eight packages, representing 92% of the total sub-subcontract value.
- Electrical packages have been awarded.
- Most of the contractors are from the regional pool.
- Work is planned to begin on the surface in spring and underground in summer 2024.

Far Detectors and Cryogenics (FDC) Status:

- A DOE review last week requested approval for construction funding for the FDC project.
- Work is planned to commence in the fall of 2024, with steel deliveries.
- This project will approximately double the staff on site.
- ProtoDUNE detectors have proven technologies for FD1 and FD2, and fabrication for LBNF/DUNE is ongoing.

Staffing Needs: There will be staffing needs for various positions, including technicians, technical specialists, rigging and transportation personnel, electronics experts, mechanical specialists, general construction workers, equipment operators, electrical professionals, and surveyors. Competitive wages will be offered, and most positions will require general experience in a wide variety of industries.

Hiring Timeline:

- October 2023: Gold Rush hiring event, FRA on-site recruiting event.
- January 2024: Compensation analysis and preloading of jobs into the workday system for posting.
- March 2024: Monument recruiting event.
- September 2024: Hiring the first surge with onboarding and orientation processes.
- January 2025: Monitoring of HCM dashboards for hiring success and retention trends.

Office Space: Plans include remodeling the existing Ross Dry space to accommodate all FSCF-BSI and FDC staff during construction. Pending board approval of lease modification, this will provide thirteen BSI offices, twelve FDC offices, flex space/conference room and an expansion of the Fermilab office at the bottom of Mill Street.

Ms. Lebrun asked about safety and logistics for new hires. Mr. Willhite acknowledged the challenge and emphasized training and robust safety reviews. He highlighted the importance of peer reviews and mitigation measures to ensure workplace safety. Dr. Fall inquired about efforts to recruit from the Tribes to which Mr. Willhite said he would have to follow up to confirm, but in the past, they have tried to make sure they advertised with the Tribes. Mr. Willhite said there is a new Women in Engineering group, and they are specifically reaching out to that group to increase diversity.

Mr. Willhite concluded by noting the need for additional office space and the requested lease modification to accommodate staff. He mentioned plans for expanding offices at the bottom of the hill on Mill Street in Lead and exploring other potential spaces. Mr. Willhite asked if there were any questions, and there were none. Chairperson Peterson thanked him for the updates.

Motion by Ms. Lebrun and seconded by Mr. Dykhouse to accept the Executive Director's report as presented. Motion passed unanimously.

ITEM 11. APPROVE LBNF/DUNE LEASE

Mr. Headley discussed the expanded office area that was mentioned by Mr. Willhite earlier in the meeting. Approximately 3,000 square feet of space is to be allocated to the project, while the current space is approximately 2,700 square feet. It was emphasized that the SDSTA Emergency Response Team would retain its current space. Mr. Headley informed the board management is in favor of this project.

Mr. Engel stated the negotiation of the final terms is a work in progress, and recommended that when the board approves the amendment, it grants the Chairperson the authority, in consultation with the Executive Director and General Counsel, to finalize the terms of the project and authorize the Chairperson to sign it.

Motion by Mr. Musick and seconded by Dr. Fall to approve the amendment to the DOE lease, to authorize the Chairperson, in consultation with the Executive Director and General Counsel, to finalize the terms of the amendment, and authorize the Chairperson to sign it. Motion passed unanimously.

ITEM 12 APPROVE AMENDED MOU BETWEEN SDSTA AND FRA

Mr. Headley mentioned the last update to the Memorandum of Understanding (MOU) in question was in 2019, and that revision indicated that it would be reviewed every three years. He noted there are no extensive changes to the document. Mr. Engel added that he did not see any significant changes, except for some updates to references for certain agreements and clarification on how often it will be reviewed. It was recommended the amended MOU be approved.

Motion by Mr. Wheeler and seconded by Dr. Fall to approve the amended Memorandum of Understanding and authorize the SDSTA Executive Director to sign the MOU. Motion passed unanimously.

ITEM 13. EXECUTIVE SESSION

Motion by Mr. Wheeler and seconded by Mr. Dykhous to enter executive session to discuss personnel and contractual matters and to consult with legal counsel concerning legal and contractual matters as permitted by SDCL 1-25-2(1), (3) and (4), and SDCL 19-19-502. Motion passed unanimously.

The board recessed at 11:08 a.m. (CDST) for a ten-minute break followed by an executive session.

The board reconvened in open session at 12:14 p.m. (CDST).

ITEM 14. REPORT FROM EXECUTIVE SESSION

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

Motion by Mr. Dykhous and seconded by Ms. Lebrun to approve the executive session report. Motion passed unanimously.

ITEM 15. CONFIRM DATE AND TIME OF NEXT MEETING

Chairperson Peterson reminded the board of the next meeting, scheduled for Thursday, December 14, 2023, at 9:00 a.m. (MST)/10:00 a.m. (CST) at Elevate Rapid City and via Zoom. He also reminded the board of the Nobel Day celebration and public launch of the Institute will be that evening from 5:00 p.m. to 7:00 p.m. at Elevate as well.

ITEM 16. PUBLIC COMMENTS

Chairperson Peterson said he did not receive any public comment request forms and there were no questions from the audience.

ITEM 17. BOARD COMMENTS

Chairperson Peterson inquired if there were any comments from the board. He then proceeded to announce that he would suspend the board comments unless there was a pressing matter that needed to be addressed. No comments or concerns were raised by the board members.

ITEM 18. ADJOURN 11:16

Chairperson Peterson called for a motion to adjourn.

Motion by Mr. Musick and seconded by Mr. Dykhous to adjourn. Motion passed unanimously.

Meeting adjourned at 12:16 p.m. (CDST) on September 21, 2023.

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Conflict of Interest Disclosure—Mr. Tim Engel

Invite members of the board to disclose anything that might be construed to be a conflict of interest relative to their role on the board.

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Disclosures Under SDCL CH. 3-23—Mr. Tim Engel

Recommended Action:

Motion to approve or deny as appropriate.

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Report from Audit Committee—Ms. Patricia Lebrun

The Audit Committee report includes the following:

- 6A. Audit Committee meeting update, *minutes attached*.
- 6B. Eide Bailly LLC audit update, *informational*.
- 6C. SDSTA Audit Report-fiscal year ended June 30, 2023. (*see recommended motion below*)

Recommended Action:

6C. Motion to accept Audit Committee Report and to request Audit Report approval at the next regularly scheduled board meeting per statute.

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Audit Committee Meeting

November 14, 2023

Participants:

Ms. Pat Lebrun, SDSTA Board of Directors and Audit Committee Chair
Mr. Roger Musick, SDSTA Board of Directors and Audit Committee Member
Mr. Terry Miller, SDSTA Chief Financial Officer
Ms. Kimberly Flock, SDSTA Controller

Absent:

Mr. Dana Dykhouse, SDSTA Board of Directors and Audit Committee Member

A teleconference was held November 14, 2023 to discuss the Financial and Compliance Audit of the South Dakota Science and Technology Authority (SDSTA). Both items were sent to the Audit Committee in advance.

Greetings were exchanged and the following items were discussed:

1. The Audit Committee discussed the Annual Financial Report.
2. Terry Miller explained that the SDSTA had no audit comments. The audit experience was good and timely this year. Pat stated that the Annual Financial Report dated June 30, 2023 has been completed and it will be submitted for review at the December Board meeting. Approval will be recommended at the March Board meeting.
3. Pat and Roger said they had a chance to review the financial report. Pat asked if there were any major items of note in the financial report. Terry replied there are two items: 1) the \$13 million received from Senate Bill 35 (SB35) for the underground expansion, and 2) the sale of xenon and one-time principal reduction of debt with the three foundations. Pat and Roger had further discussions on these items.
4. Roger moved to accept the financial audit report as presented and Pat seconded it. Both voted Yea.
5. The Audit Committee discussed the compliance audit (Federal Awards Report dated June 30, 2023).
6. Pat said that the compliance audit generated by Eide Bailly is a new report for the SDSTA. Terry explained that in the past, the Dept. of Legislative Audit included this type of reporting as part of the State's Single Audit and did not issue a separate report. SDSTA is still part of the State's Single Audit; however, the compliance audit is considered a standalone report for Eide Bailly.
7. Pat and Roger said they would like the Eide Bailly auditor to present at the December 14 board meeting, especially with the auditor still being new for the SDSTA.
8. Pat moved to accept the SDSTA compliance audit and Roger seconded it. Both voted Yea.

Meeting adjourned.

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Federal Awards Reports
June 30, 2023

South Dakota Science and Technology Authority

Independent Auditor’s Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing Standards</i>	1
Independent Auditor’s Report on Compliance for the Cooperative Agreement with the U.S. Department of Energy’s Office of Science for the Sanford Underground Research Facility (SURF); Report on Internal Control Over Compliance; and Report on the Schedule of Expenditures of Federal Awards of the South Dakota Science and Technology Authority’s Cooperative Agreement	3
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Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

The Honorable Kristi Noem
Governor of South Dakota
and
Board of Directors
South Dakota Science and Technology Authority

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of the business-type activities of South Dakota Science and Technology Authority, ("the Authority"), a component unit of the State of South Dakota, as of and for the year then ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements and have issued our report thereon dated October 12, 2023.

Report on Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Authority's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that have not been identified.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the result of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in black ink that reads "Eide Bailly LLP". The signature is written in a cursive, flowing style.

Denver, Colorado
October 12, 2023



Independent Auditor's Report on Compliance for the Cooperative Agreement with the U.S. Department of Energy's Office of Science for the Sanford Underground Research Facility (SURF); Report on Internal Control Over Compliance; and Report on the Schedule of Expenditures of Federal Awards of the South Dakota Science and Technology Authority's Cooperative Agreement

The Honorable Kristi Noem
Governor of South Dakota
and
Board of Directors
South Dakota Science and Technology Authority
Lead, South Dakota

Report on Compliance

Opinion on the Cooperative Agreement

We have audited the South Dakota Science and Technology Authority's (the Authority) compliance with the Cooperative Agreement applicable to the Authority's U.S. Department of Energy's Office of Science for the Sanford Underground Research Facility (SURF) – Operations Program (Cooperative Agreement) for the year ended June 30, 2023.

In our opinion, the Authority complied, in all material respects, with the compliance requirements referred to above that are applicable to the Cooperative Agreement for the year ended June 30, 2023.

Basis for Opinion on the Cooperative Agreement

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America (GAAS); the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States (*Government Auditing Standards*); and with the compliance criteria prescribed in the *OMB Compliance Supplement* that we considered to be direct and material to the Cooperative Agreement. Our audit does not purport to, and does not meet, the audit requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform and Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*. Our responsibilities under those standards and the Cooperative Agreement are further described in the Auditor's Responsibilities for the Audit of Compliance section of our report.

We are required to be independent of the Authority and to meet our other ethical responsibilities, in accordance with relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on compliance for the Cooperative Agreement. Our audit does not provide a legal determination of the Authority's compliance with the compliance requirements referred to above.

Other Matter – Federal Expenditures Not Included in the Compliance Audit

As discussed in Note A, the schedule of expenditures of federal awards of the Authority's Cooperative Agreement is intended to present only the expenditures of federal awards of the Cooperative Agreement. The schedule does not purport to, and does not, present fairly the expenditures of federal awards of the State of South Dakota or the Authority as of and for the year ended June 30, 2023, in conformity with the Title 2 U.S. *Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*. Our opinion is not modified with respect to this matter.

Responsibilities of Management for Compliance

Management is responsible for compliance with the requirements referred to above and for the design, implementation, and maintenance of effective internal control over compliance with the requirements of laws, statutes, regulations, rules and provisions of contracts or grant agreements applicable to the Authority's government programs.

Auditor's Responsibilities for the Audit of Compliance

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on the Authority's compliance based on our audit. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS, *Government Auditing Standards*, and the OMB Compliance Supplement will always detect material noncompliance when it exists. The risk of not detecting material noncompliance resulting from fraud is higher than for that resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Noncompliance with the compliance requirements referred to above is considered material, if there is a substantial likelihood that, individually or in the aggregate, it would influence the judgment made by a reasonable user of the report on compliance about the Authority's compliance with the requirements of the government program as a whole.

In performing an audit in accordance with GAAS, *Government Auditing Standards*, and the OMB Compliance Supplement, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material noncompliance, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the Authority's compliance with the compliance requirements referred to above and performing such other procedures as we considered necessary in the circumstances.
- Obtain an understanding of the Authority's internal control over compliance relevant to the audit in order to design audit procedures that are appropriate in the circumstances and to test and report on internal control over compliance in accordance with the OMB Compliance Supplement, but not for the purpose of expressing an opinion on the effectiveness of The Authority's internal control over compliance. Accordingly, no such opinion is expressed.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and any significant deficiencies and material weaknesses in internal control over compliance that we identified during the audit.

Report on Internal Control over Compliance

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a government program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the Auditor's Responsibilities for the Audit of Compliance section above and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies in internal control over compliance. Given these limitations, during our audit we did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses, as defined above. However, material weaknesses or significant deficiencies in internal control over compliance may exist that were not identified.

Our audit was not designed for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, no such opinion is expressed.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the OMB Compliance Supplement. Accordingly, this report is not suitable for any other purpose.

Report on Schedule of Expenditures of Federal Awards of the Cooperative Agreement

We have audited the financial statements the Authority, a component unit of the State of South Dakota, as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements. We issued our report thereon dated October 12, 2023, which contained an unmodified opinion on those financial statements. Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the basic financial statements. The accompanying schedule of expenditures of federal awards of the Cooperative Agreement is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards of the Cooperative Agreement is fairly stated in all material respects in relation to the basic financial statements as a whole.

A handwritten signature in cursive script that reads "Eric Sully LLP".

Denver, Colorado
October 12, 2023

South Dakota Science and Technology Authority

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS OF THE COOPERATIVE AGREEMENT WITH THE U.S.
DEPARTMENT OF ENERGY'S OFFICE OF SCIENCE FOR THE SANFORD UNDERGROUND RESEARCH FACILITY (SURF)
– OPERATIONS PROGRAM (COOPERATIVE AGREEMENT)
Year ended June 30, 2023

Program Description	Federal Financial Assistance Listing	Expenditures
U.S. DEPARTMENT OF ENERGERY		
Office of Science - Chicago Office of Acquisition/Assistance	81.049	\$ 30,558,122

South Dakota Science and Technology Authority
NOTES TO THE SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS OF THE COOPERATIVE AGREEMENT WITH
THE U.S. DEPARTMENT OF ENERGY'S OFFICE OF SCIENCE FOR THE SANFORD UNDERGROUND RESEARCH
FACILITY (SURF) – OPERATIONS PROGRAM (COOPERATIVE AGREEMENT)
Year ended June 30, 2023

Note A – Basis of Presentation

The South Dakota Science and Technology Authority (the Authority) is a discretely presented business-type activities component unit of the State of South Dakota. The accompanying schedule of expenditures of federal awards of the Authority's Cooperative Agreement is intended to present only the expenditures of federal awards of the Cooperative Agreement as directed by the South Dakota Department of Legislative Audit. The schedule does not purport to, and does not, present fairly the expenditures of federal awards of the State of South Dakota or the Authority as of and for the year ended June 30, 2023, in conformity with the Title 2 *U.S. Code of Federal Regulations Part 200, Uniform and Administrative Requirements, Cost Principles, and the Audit Requirements for Federal Awards*. In addition, the schedule presents only a selected portion of the operations of the Authority, it is not intended to, and does not, present the financial position, changes in net position or cash flows of the Authority.

Note B – Summary of Significant Accounting Policies

Expenditures reported on the schedule are reported on the cash basis of accounting. Such expenditures are recognized following the cost principles contained in the Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement.

Note C – Indirect Cost Rate

The SDSTA has elected not to use the 10-percent indirect cost rate as allowed under the Uniform Guidance.

South Dakota Science and Technology Authority
Schedule of Findings and Questioned Costs – Cooperative Agreement
Year Ended June 30, 2023

Section I – Summary of Auditor's Results

Financial Statements

Type of auditor's report issued	Unmodified
Internal control over financial reporting:	
Material weaknesses identified	No
Significant deficiencies identified not considered to be material weaknesses	None Reported
Noncompliance material to financial statements noted	No

Federal Awards

Internal control over major programs:	
Material weaknesses identified	No
Significant deficiencies identified not considered to be material weaknesses	None Reported
Type of auditor's report issued on compliance for major programs	Unmodified
Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516	No

Identification of the program audited:

<u>Name of Federal Program or Cluster</u>	<u>Federal Financial Assistance Listing</u>
SURF (Sanfor Underground Research Facility) Operations Support	81.049

Section II – Financial Statement Findings

None

Section III – Federal Award Findings and Questioned Costs

None

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ANNUAL FINANCIAL REPORT

JUNE 30, 2023

South Dakota Science and Technology Authority

A Business Type Enterprise Activity Component Unit of the State of South Dakota



SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

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Independent Auditor's Report

Board of Directors of
South Dakota Science and Technology Authority
Denver, Colorado

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the business-type activities of South Dakota Science and Technology Authority, a component unit of the State of South Dakota, as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the South Dakota Science and Technology Authority's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective financial position of the South Dakota Science and Technology Authority, as of June 30, 2023, and the respective changes in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States (*Government Auditing Standards*). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of South Dakota Science and Technology Authority, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about South Dakota Science and Technology Authority's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of South Dakota Science and Technology Authority's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about South Dakota Science and Technology Authority's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 1–6 and the South Dakota Science and Technology Authority's proportionate share of the net pension liability (asset) and schedule of contributions on pages 27-28 be presented to supplement the basic financial statements. Such information is the responsibility of management and although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise South Dakota Science and Technology Authority's basic financial statements. The schedule of operating expenses and supplemental schedule of expenditures of federal awards are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 12, 2023 on our consideration of the 's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of 's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering 's internal control over financial reporting and compliance.



Denver, Colorado
October 12, 2023

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

MANAGEMENT'S DISCUSSION AND ANALYSIS

JUNE 30, 2023

This section of the South Dakota Science and Technology Authority's (SDSTA's) annual financial report presents management's discussion and analysis of the SDSTA's financial performance during the fiscal year ended June 30, 2023 (FY 2023). This analysis should be read in conjunction with the financial statements and notes to the financial statements.

The SDSTA's financial statements include the operations of funds that the SDSTA has established to achieve its goal of maintaining the Sanford Underground Research Facility (SURF) in support of the science mission under the agreement with the Department of Energy's (DOE's) Office of Science. The property was donated by Homestake Mining Company of California, to the State of South Dakota and SDSTA in April 2006.

The activity of the SDSTA is accounted for as a proprietary fund type. The SDSTA is a component unit of the State of South Dakota, and its financial statements are included in the Annual Comprehensive Financial Report of the State of South Dakota.

Included in the financial statements presented is a current year comparison to prior year balance sheet summary, revenue and expense summary, and capital assets. Further reports reflect current year detailed statement of net position, statement of revenue, expense and changes in net position, cash flow, and schedule of operating expenses. Comparisons of current year to prior year are important to display increases and decreases in various elements of the financial reports for the SDSTA. Current year detailed reports provide significant detail for statement of net position, revenues, expenses, and cash flows for the SDSTA.

FINANCIAL HIGHLIGHTS:

- Total Assets at year-end increased to \$140,465,198.
- Current Assets increased by \$11,120,205. Cash on Deposit with State Treasurer increased by \$13,174,691 due to a \$13,000,000 appropriation from SB35, and interest. Yet, Cash in the Local Bank decreased by \$2,082,818 due to increase in prepaids and accounts receivable of \$488,718, and a decrease in current liabilities of \$459,924 at year-end. Local cash held was also affected by a lower indirect cost rate established in FY2022 compared to higher indirect expenses paid in FY2023. Inventory of Supplies decreased by \$527,243 for surplus of assets.
- Capital Assets increased by \$1,959,896, net of depreciation expense. Page 4 details the major capital asset additions and deletions. Furthermore, page 14 summarizes the changes in capital assets by major categories. The current funding to manage and operate the facility comes from a Cooperative Agreement with the DOE – Office of Science that was effective September 30, 2019. Additional property purchased under this agreement is kept separate under the Capital Assets category, as this property has become vested in the SDSTA upon acquisition.
- Net Pension Asset decreased to \$58,078. The State's retirement system is fully funded (see Note 6 – page 17). The SDSTA's total contributions to the South Dakota Retirement System (SDRS) increased by \$82,173 from 2022 to 2023. This was due primarily to an increase in personnel wages. GASB standards allow entities to use a pension measurement date up to one year prior to the entities reporting period. Therefore, the SDSTA is using a June 30, 2022, pension measurement date for our fiscal year-end June 30, 2023, statements. GOED funding of \$2,000,000 received in 2017 along with loans from various South Dakota Foundations have enabled the SDSTA to purchase xenon to be used in the future LZ experiment. Xenon purchased decreased by \$246,517 to \$8,687,833 as of June 30, 2023, due to sale of a portion of the asset. In summary, the Pension Asset and Xenon Purchased have decreased by \$4,918,994.
- Pension Related Deferred Outflows is also related to our retirement plan with SDRS. The amounts recorded relate to our proportionate share of the differences between expected and actual experience in pension earnings along with the SDSTA's pension contributions made subsequent to June 30, 2022. Asset Retirement Obligation Deferred Outflows is the estimated costs associated with closing the SURF facility. The total Deferred Outflows of Resources have decreased to \$6,857,010.
- Total Liabilities at year-end decreased by \$3,340,502. Accounts payable is slightly higher when comparing the two time periods. However, liabilities associated with employee wages, leave and benefits decreased due to timing of the payroll accrual. Xenon notes payable decreased by \$2,878,810 for sale of Xenon that was used as a one-time principal reduction.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED)

JUNE 30, 2023

- Pension Related Deferred Inflows is also connected to our retirement plan with SDRS. The recorded amount relates to our portion of the difference between projected and actual earnings on pension plan investments and changes in various assumptions. Our portion has decreased by \$5,852,211.
- Total Restricted Net Position increased by \$13,862,461. This increase is primarily due to the \$13,000,000 appropriation from SB35 for Underground Expansion.
- Unrestricted Net Position increased by \$745,722 to \$14,014,878.
- Total Net Position at year-end increased by \$16,568,079 to \$136,519,299.
- Charges for Goods and Services increased slightly to \$519,762.
- Operating Grants decreased by \$2,157,140 to \$36,232,484, primarily due to decreased Infrastructure Improvement Projects (IIP Projects).
- Miscellaneous revenue decreased to \$297,521 primarily due to a decrease in revenue from the Sanford Underground Research Facility Foundation and other miscellaneous receipts.
- Capital Grants and Contributions decreased by \$4,066,940. This is due to the property donation of the Sanford Lab Homestake Visitor Center from the Lead Area Chamber of Commerce in FY2022.
- Investment Earnings for fiscal year 2023 are at \$386,252. The unrealized appreciation and undistributed earnings that were reversed from the prior year when compared to the current year unrealized appreciation and undistributed earnings results in an increase in investment earnings. Also, investment earnings of \$305,707 were received on the cash on deposit with State Treasurer. This actual allocation compared to last year increased by \$202,743 due to a higher amount of cash being deposited for investment with the State Treasurer.
- Total Program Expenses for the SDSTA were \$35,667,169 which represents an increase of 5.84% percent from the previous year. Included in Total Program Expenses are Operating Expenses which increased by \$1,936,025 to \$35,267,701. Personnel Services represent 58% of the Operating Expenses; Contractual Services represent 22%; and Supplies, Materials, Travel, Depreciation, and Other Expenses represent 20% of these expenses. Most of the increase in Operating Expenses is due to increased Personnel Services.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED)
JUNE 30, 2023

FINANCIAL STATEMENT ELEMENTS:

STATEMENT OF NET POSITION

	2023	2022	Dollar Change	Percent Change
Current Assets	\$ 35,359,465	\$ 24,239,260	\$ 11,120,205	45.88%
Capital Assets	96,359,821	94,399,925	1,959,896	2.08%
Net Pension Asset and Xenon Purchased	8,745,911	13,664,905	(4,918,994)	-36.00%
Total Assets	140,465,197	132,304,090	8,161,107	6.17%
Pension Related Deferred Outflows	5,765,027	6,513,113	(748,086)	-11.49%
Asset Retirement Obligation Deferred Outflows	1,091,983	1,129,638	(37,655)	100.00%
Total Deferred Outflow of Resources	6,857,010	7,642,751	(785,741)	-10.28%
Long-Term Liabilities Outstanding	5,030,573	7,911,151	(2,880,578)	-36.41%
Other Liabilities	2,324,419	2,784,343	(459,924)	-16.52%
Total Liabilities	7,354,992	10,695,494	(3,340,502)	-31.23%
Pension Related Deferred Inflows	3,447,916	9,300,127	(5,852,211)	-62.93%
Net Position:				
Net Investment in Capital Assets	96,359,821	94,399,925	1,959,896	2.08%
Restricted	26,144,600	12,282,139	13,862,461	112.87%
Unrestricted	14,014,878	13,269,156	745,722	5.62%
Total Net Position	\$ 136,519,299	\$ 119,951,220	\$ 16,568,079	13.81%

CHANGE IN NET POSITION

	2023	2022	Dollar Change	Percent Change
Revenues				
Program Revenues:				
Charges for Services	\$ 519,762	\$ 473,945	\$ 45,817	9.67%
Operating Grants	36,232,484	38,389,624	(2,157,140)	-5.62%
Miscellaneous	297,521	142,886	154,635	108.22%
General Revenues:				
Non-Operating Revenues	14,799,230	4,066,940	10,732,289	263.89%
Investment Earnings	386,252	171,113	215,139	125.73%
Total Revenue	52,235,248	43,244,508	8,990,740	20.79%
Expenses				
Program Expenses	35,667,169	33,331,675	2,335,494	7.01%
Non-Operating Expenses	399,468	340,086	59,382	17.46%
Total Expense	36,066,637	33,671,761	2,394,876	7.11%
Change in Net Position	16,568,080	9,572,748	6,595,864	68.90%
Net Position-Beginning	119,951,219	110,136,790	9,814,429	8.91%
Net Position-Ending	\$ 136,519,299	\$ 119,709,538	\$ 16,410,294	13.71%

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED) JUNE 30, 2023

CAPITAL ASSETS (Net of Depreciation)

	2023	2022	Change
Improvements	\$ 42,561,300	\$ 43,887,893	\$ (1,326,593)
Underground	17,936,955	17,936,955	-
Buildings	14,347,415	14,776,029	(428,614)
Computer Equipment	74,955	69,868	5,087
Equipment	3,529,913	4,006,074	(476,161)
Construction in Progress	6,192,248	4,118,734	2,073,514
Land	1,924,136	1,924,136	-
Infrastructure	1,316,138	1,451,642	(135,504)
Furniture	2,250	6,737	(4,488)
Archive Material	70,000	70,000	-
Auto	327,954	334,972	(7,018)
DOE Property Transfer	8,076,554	5,816,885	2,259,669
Total Capital Assets	\$ 96,359,817	\$ 94,399,925	\$ 1,959,892

This year's major capital asset additions and deletions included:

Purchased Capital Assets:

Improvements in Progress (Current Year Additions/Deletions):

IIP Projects (net)	\$ 2,007,369
Other projects	66,145

Auto changes (Current Year Additions/(Deletions)):

2022 Ram 3500 Tradesman	61,053
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Building & Infrastructure Changes (Current Year Additions/(Deletions)):

(247,348)

Computer Equipment, Machinery and Equipment changes (Current Year Additions/(Deletions)):

SLHVC Design Lab Panels	43,691
2 Dell Server Bundles	41,866
Spendrup 350 HP At Oro Hondo FN-RLS01-02	(83,093)
Yates Work Platform (Skip Bonnet) WD-XXS99-01	(30,419)
500KVA Transformer 3 Phase at Oro Hondo	(18,465)
A Bradley Powerflex AC Drive 3 Phase 100HP 125	(15,068)
Hitachi CPWU9410 Projector IT-YSS12-60	(13,228)
Battery For Trojan Locomotive 2.25T BT-XXU99-03	(11,000)
Polycom Eagle Eye V Camera Mic Array	(12,259)
Polycom Eagle Eye V Camera Mic Array	(12,259)
Float Valves for Yates (12)	(98,011)
HydraulicClamb/Pneuma Drilling Attachment w/SkidSteer Mount	(26,940)
Shotcrete Mixing Auger	(18,450)
R&M Hoist 10 Ton	(21,561)
700HP Kirk Timberyard Surface Fan	(25,861)
Telephone Systems	(119,538)
Mini Track Loader	(22,546)
Other	(63,954)

DOE Property Transfer:

Sulzer Pump, Battery Charger Elec Vehicle, Cell Battery Elec Vehicle, Mosfet Locomotive controller, Stench Gas Electric Activation System, TOC Water Sensor 6000i, Transmitter M800 Water 4-ch EIP, Yardney Filtration Bldg., Alignment System, Wireless Laser Shaft, Pullback Snow Pusher, 2 - 72 V Mosfet Locomotive controller, Western Tornado Sander, Tuck Pointing and Roof Drain, MVP Snow Plow, Deep Well Pump and Motor, Kubota 2019 Diesel RTV.	2,671,826
	\$ 4,051,949

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED) JUNE 30, 2023

LONG-TERM DEBT

At the year-end, the SDSTA had \$5,030,573 in other long-term obligations. This is a decrease of approximately 36% as shown below.

	2023	2022	Total Dollar Change	Total Percentage Change
Compensated Absences	\$ 712,498	\$ 781,513	\$ (69,015)	-8.83%
Asset Retirement Obligation	1,196,885	1,129,638	67,247	5.95%
Xenon Notes Payable	3,121,190	6,000,000	(2,878,810)	-47.98%
Total Long-Term Debt	\$ 5,030,573	\$ 7,911,151	\$ (2,880,578)	-36.41%

- The SDSTA is liable for the accrued vacation leave payable to all full-time employees. In addition, the SDSTA is liable for a portion of the earned sick leave of employees who have been employed for seven consecutive years. The \$69,015 decrease in compensated absences is due to a decrease in the corresponding amount of leave accumulated and outstanding at the end of the year for employees. The decrease in the Xenon Notes Payable was due to the one-time principal payment from the sale of Xenon. The Asset Retirement Obligation increased due to inflationary factors. Note (4) Long-Term Debt in the Notes to Financial Statements on page 15 details the activity for the period for compensated absences, asset retirement obligation and the xenon note payable.
- On November 7, 2022, the SDSTA signed a Promissory Note with the First Interstate Bank for \$5,000,000. This agreement represents a variable rate revolving line of credit. Collateral for this line of credit includes the SDSTA's Account Receivable. The SDSTA put this loan in place if government funding were to be slowed due to a government shutdown. The SDSTA has not drawn down any funding from this line of credit. The maturity date is October 31, 2023, at which time we will renew for another one-year term.

ECONOMIC FACTORS

- A report released from the Particle Physics Project Prioritization Panel (P5) in May 2014, outlined the 10-year strategic plan for high-energy physics in the United States. The report provides strong support for science programs envisioned to be located at SURF, including research into neutrinos and dark matter, both of which are being researched at SURF. This panel formally advises both the DOE Office of Science and the National Science Foundation (NSF) on support for physics. This report has played a key role in the evolution of SURF and its experiments. The next P5 report is in development and is planned to be released in 4th quarter of 2023.
- The SDSTA's Board of Directors approved an operating budget of \$3,592,269 for fiscal year 2024 in favor of SDSTA supported activities. Additionally, SDSTA's total indirect expense budget for fiscal year 2024 is \$14,008,892.
- The SDSTA transitioned to a five-year Cooperative Agreement with the Department of Energy's (DOE) Office of Science in September 2019 including a budget of \$122,134,028 for five years of SURF Operations. We are in the fourth year of this award with a current budget of \$26,735,099. Additionally, SDSTA has been awarded \$28,211,522 in Infrastructure Improvement Projects (IIPs) with \$16,909,525 spent through FY2023.
- In October 2014, DOE established the Long-Baseline Neutrino Facility (LBNF) / Deep Underground Neutrino Experiment (DUNE) Project with strong international support to build the largest science experiment ever attempted on United States soil. LBNF will send neutrinos through the earth from Fermilab in Batavia, Illinois, to the DUNE detectors located at SURF in Lead, South Dakota. In September 2016, DOE formally approved plans for construction at SURF. In June 2021, LBNF began excavating 875,000 tons of rock to create large caverns to house DUNE. DOE support for professional engineering management services continues into FY2024 for this LBNF effort.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

MANAGEMENT'S DISCUSSION AND ANALYSIS (CONTINUED)

JUNE 30, 2023

- The LBNF/DUNE Logistics Support Services contract continues with our support to the LBNF/DUNE construction efforts with the buildout of the large underground caverns at SURF for this experiment.
- Further funding was received in FY2023 through Lawrence Berkeley National Laboratory (LBNL) and DOE in support of the LUX-ZEPLIN (LZ) physics experiment operations and the SIGMA-V geothermal energy research project. These awards reimbursed the SDSTA for expenses incurred for materials and supplies as well as a percentage of the salaries of the SDSTA staff members directly supporting these projects. Support continues in FY2024 for LUX-ZEPLIN (LZ).
- Additional funding was received during the fiscal year from Oak Ridge National Laboratory and South Dakota School of Mines to support the Majorana Demonstrator experiment located at the 4850L Davis Campus. Support continues in FY2024 from SD Mines. The CASPAR experiment funded by SD Mines was mothballed in April 2021, during the LBNF excavation. Most of their equipment remains in the current 4850L for future use in their experiment at SURF. This experiment could resume in 2024.
- Additional funding was received from Thyssen Mining Inc. for equipment rentals and miscellaneous items associated with the LBNF project. Amounts charged were then credited to the Cooperative Agreement as the equipment maintenance charges were covered under that funding. An additional agreement was signed with Thyssen Mining Inc. in March 2021 to lease the Ross Pipe Shop and the Ross Maintenance Shop during their cavern excavation for the DUNE project. The lease commenced July 1, 2021, and will end upon the completion of the LBNF excavation in mid-2024.
- The SDSTA entered into a lease with Caterpillar (CAT) on September 15, 2020, for CAT to utilize two existing rooms located on the SURF 1700-foot level underground. The initial term of the lease began on October 1, 2020, and shall continue until September 30, 2030. CAT will be developing and testing new mining related products to sell commercially. The base rent under the lease is \$150,000 per annum is considered "Program Income" by the DOE Cooperative Agreement.
- The SDSTA is compliant with all legal and environmental regulations.

This financial report is designed to provide our citizens, taxpayers, customers, and investors and creditors with a general overview of the SDSTA's finances and to demonstrate the SDSTA's accountability for the money it receives. If you have any questions about this report or need additional information, contact the South Dakota Science and Technology Authority, 630 East Summit Street, Lead, SD 57754.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

STATEMENT OF NET POSITION JUNE 30, 2023

ASSETS

Current Assets

Cash in Local Bank and Petty Cash	\$ 3,715,885
Cash on Deposit with State Treasurer	24,570,910
Accounts Receivable	2,642,355
Interest Receivable	95,802
Prepaid Expenses	1,215,646
Inventory of Supplies & Warehouse	3,118,868
Total Current Assets	35,359,465

Noncurrent Assets

Xenon Purchased (Note 5)	8,687,833
Net Pension Asset (Note 6)	58,078
Land (Note 3)	1,924,136
Underground (Note 3)	17,936,955
Buildings, Machinery, Equipment, Infrastructure, & DOE Property Transferred (Net) (Note 3)	76,498,730
Total Noncurrent Assets	105,105,733

TOTAL ASSETS	140,465,198
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Deferred Outflows of Resources

Asset Retirement Obligation Deferred Outflows	1,091,983
Pension Related Deferred Outflows (Note 6)	5,765,027
Total Deferred Outflows of Resources	6,857,010

LIABILITIES

Current Liabilities

Accounts Payable	1,019,656
Accrued Wages and Benefits	592,265
Accrued Leave, Benefits (Note 4)	712,498
Total Current Liabilities	2,324,419

Long-Term Liabilities

Accrued Leave, Benefits (Note 4)	712,498
Asset Retirement Obligation (Note 4)	1,196,885
Long-Term Xenon Notes Payable (Note 4)	3,121,190
Total Long-Term Liabilities	5,030,573

TOTAL LIABILITIES	7,354,992
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Deferred Inflows of Resources

Pension Related Deferred Inflows (Note 6)	3,447,916
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NET POSITION

Invested in Capital Assets	96,359,821
Restricted for:	
Mine Closure	1,594,680
Experiments	621,241
Indemnification	7,799,604
Underground Expansion	13,114,216
Pension	2,375,188
Foundation	639,670
Unrestricted Net Position	14,014,878

TOTAL NET POSITION	\$ 136,519,299
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The accompanying notes are an integral part of this statement.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY**STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
FOR THE YEAR ENDED JUNE 30, 2023****Operating Revenue**

Charges for Goods and Services	\$ 519,762
Operating Grants	36,232,484
Miscellaneous	297,521
Total Operating Revenue	37,049,767

Operating Expenses

Personnel Services	20,579,684
Travel	296,362
Contractual Services	7,890,552
Supplies, Materials and Other Operating Expenses	3,733,628
Depreciation Expense	2,767,474
Total Operating Expenses	35,267,701

Operating Gain	1,782,066
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Nonoperating Revenues/Expenses

Interest Revenue	386,252
State Appropriation SB35	13,000,000
Gain/(Loss) on Sale of Assets	1,790,165
Contributions	9,065
Other Expense	(399,468)
Total Nonoperating Revenues/Expenses	14,786,014

Change in Net Position	16,568,080
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Net Position -- Beginning of Year	119,951,219
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Net Position -- End of Year	\$ 136,519,299
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The accompanying notes are an integral part of this statement.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

**STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED JUNE 30, 2023**

Cash Flows from Operating Activities:

Other Operating Cash Receipts	\$	822,691
Cash Receipts from Operating Grants		35,983,925
Cash Payments to Employees for Services		(21,647,497)
Cash Payments to Suppliers of Goods and Services		(12,133,626)
Net Cash Provided by Operating Activities	\$	3,025,493

Cash Flows from Noncapital Financing Activities:

Interest/Insurance Paid on Xenon	\$	(482,289)
Net Cash Used by Noncapital Financing Activities	\$	(482,289)

Cash Flows from Capital and Related Financing Activities:

State Appropriation SB35	\$	13,000,000
Purchase of Capital Assets		(4,772,928)
Net Cash Provided by Capital and Related Financing Activities	\$	8,227,072

Cash Flows from Investing Activities:

Interest Earnings	\$	321,597
Net Cash Provided by Investing Activities	\$	321,597

Net increase in Cash and Cash Equivalents **\$ 11,091,873**

Cash and Cash Equivalents at Beginning of Year 17,194,922

Cash and Cash Equivalents at End of Year **\$ 28,286,795**

Reconciliation of Operating Loss to Net Cash Used in Operating Activities:

Operating Gain	\$	1,782,066
<i>Adjustments to Reconcile Operating Loss to Net Cash Used in Operating Activities:</i>		
Depreciation & Amortization Expense		2,767,474
<i>Change in Assets and Liabilities:</i>		
Receivables		(243,151)
Prepaid Expenses		(149,591)
Inventory		(103,471)
Net Pension Asset		4,672,477
Decrease(Increase) in Deferred Outflow of Resources - Pension		748,086
Increase (Decrease) Deferred Inflow of Resources - Pension		(5,852,211)
Decrease(Increase) in ARO		(67,247)
Accounts and Other Payables		107,226
Accrued Wages Payable		(498,136)
Accrued Leave Payable		(138,030)
Net Cash Used in Operating Activities	\$	3,025,493

Continued on next page

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

**STATEMENT OF CASH FLOWS (CONTINUED)
FOR THE YEAR ENDED JUNE 30, 2023**

Cash and Cash Equivalents:

Cash in Local Bank	\$	3,712,835
Petty Cash		3,050
Cash with State Treasurer		24,570,910
Total Cash and Cash Equivalents	\$	28,286,795

Non-Cash Capital and Related Financing Activities:

Gain/Loss on Disposal of Assets	\$	1,772,473
Donated Inventory of Supplies		9,065
Total Non-Cash Activities	\$	1,781,537

The accompanying notes are an integral part of this statement.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS

JUNE 30, 2023

(1) Summary of Significant Accounting Policies

a. Reporting Entity

The South Dakota Science and Technology Authority (SDSTA) was created and organized by Chapter 1-16H of the South Dakota Codified Laws. The purposes of the SDSTA is to foster and facilitate scientific and technology investigation, experimentation, and development by creating a mechanism through which laboratory, experimental and development facilities may be acquired, developed, constructed, maintained, operated, and decommissioned. The initial focus of the SDSTA is to support the transfer of the Homestake Gold Mine in Lead, South Dakota for development by the research community to become the world's premier Underground Science and Engineering Laboratory; more specifically, the Sanford Underground Research Facility (SURF). Additional focus is maintained by the SDSTA for an education and outreach program detailing the progress. The SDSTA is a business type component unit of the State of South Dakota (the State). As such, the accompanying financial statements are included in the Annual Comprehensive Financial Report of the State of South Dakota.

The Sanford Underground Research Facility Foundation (SURFF) is a legally separate, tax-exempt component unit of the SDSTA. The SURFF was established as a fundraising organization to supplement resources for the SDSTA programs related to education, internships, public outreach, and the development of the SURF Institute. Thus, the services the SURFF provides is for the SDSTA. The sitting Chairperson of the SDSTA serves as a voting Director on an ex officio basis and is included in the total number of Directors as listed by the Bylaws. Two board members from the SDSTA are also on the Board of the SURF Foundation. The SDSTA is also responsible for any outstanding debt.

b. Fund Accounting

The SDSTA Fund is accounted for as an enterprise fund. Enterprise funds are used to account for operations (a) that are financed and operated in a manner similar to private business enterprises, where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges; or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes.

c. Measurement Focus, Basis of Accounting

The SDSTA Fund follows the economic resources measurement focus and accrual basis of accounting, wherein revenues are recognized when earned and expenses are recognized when incurred. Likewise, the SURFF follows the accrual basis of accounting. Revenues are recognized when they are earned, and expenses are recognized when they are incurred.

d. Inventory of Supplies

Inventory of supplies consists primarily of expendable equipment/supplies, donated, and purchased, not yet in service. Donated inventory of supplies are revalued at their estimated fair value on date of donation. Purchased equipment values are reported at cost. Reported cost values include ancillary charges necessary to place the asset into its intended location and condition for use at a later date.

e. Capital Assets

Capital assets include land, buildings, machinery, and equipment, and all other tangible or intangible assets that are used in operations and that have initial useful lives extending beyond a single reporting period. Infrastructure assets are long-lived capital assets that normally are stationary in nature and normally can be preserved for a significantly greater number of years than most capital assets. Capital assets are recorded at historical cost. Donated capital assets are valued at their estimated fair value on the date donated. Reported cost values include ancillary charges necessary to place the asset into its intended location and condition for use.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED) **JUNE 30, 2023**

(1) Summary of Significant Accounting Policies (Continued)

e. Capital Assets (Continued)

Subsequent to initial capitalization, improvements or betterments that are significant, and which extend the useful life of a capital asset are also capitalized. Depreciation of all exhaustible capital assets is recorded as an expense in the Statement of Revenues, Expenses, and Changes in Net Position, with net capital assets reflected in the Statement of Net Position. Accumulated depreciation is reported on the Statement of Net Position.

Capitalization thresholds (the dollar values above which asset acquisitions are added to the capital asset accounts), depreciation methods, and estimated useful lives of capital assets reported in the SDSTA's financial statements are as follows:

	Capitalization Threshold	Depreciation Method	Estimated Useful Life
Land and Land Rights	All Land	N/A	N/A
Improvements	\$ 5,000	Straight-line	10-50 yrs.
Infrastructure	5,000	Straight-line	25-50 yrs.
Buildings	5,000	Straight-line	10-50 yrs.
Automobiles, Furniture, Machinery and Equipment	5,000	Straight-line	2-75 yrs.

f. Revenue and Expense Classifications

In the Statement of Revenues, Expenses, and Changes in Net Position, revenues and expenses are classified in a manner consistent with how they are classified in the Statement of Cash Flows. That is, transactions for which related cash flows are reported as capital and related financing activities, non-capital financing activities, or investing activities are not reported as components of operating revenue or expenses. The Authority's proprietary fund distinguishes between operating and non-operating revenues and expenses. Operating revenues and expenses of the SDSTA consist of reimbursement of the costs of operations from Homestake Mining Company and other entities, and the costs of providing those services, including depreciation. All other revenues and expenses are reported as non-operating.

g. Cash and Cash Equivalents

Cash includes cash on hand, demand deposits, and participating interest in the State's internal investment pool held by the State Treasurer. The amount held in the State's internal investment pool is reported at fair value. The SDSTA has access to the entire amount of their cash resources on demand. Accordingly, equity in the cash management pool is considered to be cash and cash equivalents for the purpose of the Statement of Cash Flows.

h. Equity Classifications

Equity is classified as net position and is displayed in three components:

1. Net investment in capital assets consists of capital assets, including restricted capital assets, net of accumulated depreciation (if applicable) and reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvements of those assets.
2. Restricted net position consists of net position with constraints placed on their use either by (a) external groups such as creditors, grantors, contributors, or laws and regulations of other governments; or (b) law through constitutional provisions or enabling legislation.
3. Unrestricted net position all other net position that do not meet the definition of "restricted" or "net investment in capital assets."

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED) **JUNE 30, 2023**

(1) Summary of Significant Accounting Policies (Concluded)

i. Application of Net Position

It is the SDSTA's policy to first use restricted net position, prior to the use of unrestricted net position, when an expense is incurred for purposes for which both restricted and unrestricted net position are available.

j. Accrued Leave

Compensated absences consist of vacation and sick leave earned. The vacation leave is earned by full-time employees at the rate of 4.62 hours per pay period, increasing to 6.16 hours per pay period from 4-8 years of service, and 7.69 hours earned after 8 years of service. The vacation leave may accumulate only to a maximum of twice the annual accrual. Upon retirement or resignation, only full-time employees with 180 days of continuous service will be paid for accumulated vacation leave. Sick leave is earned at the rate of 4.32 hours per pay period. Upon termination, some employees are entitled to receive compensation for a portion of their sick leave balance. Those with seven years of service or more will receive compensation at the rate of 25 percent of their balance up to a maximum of 480 hours.

k. Pensions

For purposes of measuring the net pension liability (asset), deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense (revenue), information about the fiduciary net position of the South Dakota Retirement System (SDRS) and additions to/deletions from SDRS's fiduciary net position have been determined on the same basis as they are reported by SDRS. The SDSTA's contributions and net pension liability (asset) are recognized on an accrual basis of accounting.

l. Leases

We evaluated all current leases to determine if they meet the GASB 87 definition of a lease. For those that did meet the definition of a lease, we concluded they were immaterial for reporting in FY2023. We will analyze this each Fiscal Year.

m. Asset Retirement Obligation

GASB 83 "Certain Asset Retirement Obligations" was implemented in FY2022. We reported an asset retirement obligation (see note 4). This cost will be evaluated each fiscal year and updated for any changes.

n. Subscription Based Information Technology Arrangements (SBITA's)

GASB 96 was implemented in FY2023. We evaluated all current information technology contracts to determine if they meet the GASB 96 definition of a SBITA. For those that did meet the definition of a SBITA, we concluded they were immaterial for reporting in FY2023. We will analyze this each Fiscal Year.

(2) Deposits and Investments

Deposits

The majority of the SDSTA's cash is on deposit with the State Treasurer. Such funds are invested through the South Dakota Investment Council. Management of the State's internal investment pool is the statutory responsibility of the South Dakota Investment Council (SDIC). The investment policy and required risk disclosures for the State's internal investment pool are presented in the audit report of the South Dakota Investment Council, which can be obtained by contacting the Department of Legislative Audit, 427 South Chapelle, c/o 500 East Capitol, Pierre, South Dakota 57501. Custodial credit risk is the risk that in the event of a bank failure, the SDSTA's deposits may not be returned to it. The SDSTA does not have a deposit policy for custodial credit risk. None of the SDSTA's deposits were exposed to custodial credit risk.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

JUNE 30, 2023

(2) Deposits and Investments (continued)

Investments

In general, SDCL 1-16H-18 permits funds to be invested in (a) direct obligations of, or obligations the principal of the interest on which are fully guaranteed or insured by, the United States of America; or (b) obligations of any solvent insurance company or other corporation or business entity if rated in the two highest classifications established by a standard rating service or insurance companies or a nationally recognized rating agency; or (c) short term discount obligations of the Federal National Mortgage Association; or (d) obligations of any state of the United States or any political subdivision, public instrumentality, or public authority of any state of the United States, which obligations are not callable before the principal is to be paid, are fully secured as to both sufficiency and timely payment by, and payable solely from, obligations described in (a). The SDSTA did not have any investments as of June 30, 2023.

(3) Changes in Capital Assets

A summary of changes in capital assets for the year ended June 30, 2023, is as follows:

	Balance June 30, 2022	Increases	Decreases	Balance June 30, 2023
Business-Type Activities:				
Capital Assets, not Being Depreciated:				
Land	\$ 1,924,136	\$ -	\$ -	\$ 1,924,136
Underground	17,936,955	-	-	17,936,955
Archive Materials	70,000	-	-	70,000
Construction Work in Progress (CIP) (see Note 10)	4,118,734	4,035,169	1,961,655	6,192,248
Total Capital Assets, not Being Depreciated	24,049,824	4,035,169	1,961,655	30,046,647
Capital Assets, Being Depreciated:				
DOE Property Transferred	6,328,277	2,684,639	12,813	9,000,103
Automobiles	477,611	61,053	-	538,664
Buildings	17,383,244	-	123,513	17,259,731
Furniture	67,298	-	-	67,298
Computer Equipment	339,634	41,866	15,065	366,435
Improvements	55,625,517	-	6,589	55,618,928
Infrastructure	2,003,189	-	117,246	1,885,943
Machinery and Equipment	10,183,443	57,752	591,649	9,649,546
Total Capital Assets, Being Depreciated	92,408,213	2,845,309	866,874	94,386,650
Total Capital Assets, Before Depreciation	116,458,038	6,880,478	2,828,529	120,509,987
Less Accumulated Depreciation:				
DOE Property Transferred	511,392	416,333	4,176	923,549
Automobiles	142,639	68,071	-	210,710
Buildings	2,607,215	356,083	50,983	2,912,316
Computer Equipment	269,766	36,778	15,064	291,480
Furniture	60,561	4,487	-	65,048
Improvements	11,737,624	1,326,593	6,589	13,057,628
Infrastructure	551,547	52,259	34,002	569,805
Machinery and Equipment	6,177,368	469,221	526,957	6,119,633
Total Accumulated Depreciation	22,058,112	2,729,825	637,770	24,150,167
Capital Assets, Net	\$ 94,399,926	\$ 4,150,654	\$ 2,190,759	\$ 96,359,821

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED) JUNE 30, 2023

(4) Long-Term Debt

A summary of changes in long-term debt follows:

	Beginning Balance	Additions	Deletions	Ending Balance	Due Within One Year
Accrued Compensated Absences	\$ 1,563,025	\$ 1,249,628	\$ 1,387,657	\$ 1,424,996	\$ 712,498
Asset Retirement Obligation	1,129,638	67,247	-	1,196,885	-
Xenon Notes Payable	6,000,000	-	2,878,810	3,121,190	-
	<u>\$ 8,692,663</u>	<u>\$ 1,316,875</u>	<u>\$ 4,266,467</u>	<u>\$ 5,743,071</u>	<u>\$ 712,498</u>

Xenon Notes Payable

Loan Agreements with S.D. Community Foundation (SDCF), S.D. State University Foundation (SDSUF), and University of S.D. Foundation (USDF) to purchase Xenon.

Repayment of Xenon Notes Payable

Each Foundation's share of Xenon shall be sold at a time such that the loans will be paid by the maturity date provided by the loan documents. Furthermore, if the SDSTA sells Xenon for more than the cost to purchase it, the Foundations shall be paid the full principal amount payable plus an amount equal to the Average Return times the number of liters of Xenon purchased using Foundation Funds. The "Average Return" means the total price received for the sale of all Xenon owned by SDSTA within the Project minus the amount paid to all Foundations providing funding, with the difference then divided by the total number of liters sold. Furthermore, if the SDSTA fails to pay any payment required on or before the due date, the Foundations may declare the entire remaining balance immediately due and payable.

In November 2022, the South Dakota Science and Technology Authority negotiated the sale of 45,274 liters of Xenon for \$2,878,810. Book value at 6/30/2022 of Xenon sold was \$246,517 (See Note 5).

Proceeds from this sale were used to satisfy part of the long-term debt on loan agreements with the three foundations. The remaining balance of the notes payable was renegotiated and extend the due date of these notes by two years.

The loans are 13 year, unsecured non recourse loans with 2.5% simple interest paid quarterly. The SDCF note is due on October 1, 2028. The SDSUF and USDF notes are due December 31, 2028.

Also see Note 8.

\$ 3,121,190

The annual requirements to amortize long-term debt outstanding as of June 30, 2023, are as follows:

	Xenon Notes Payable		Totals	
	Interest	Principal	Interest	Principal
2024	78,030	-	78,030	-
2025	78,030	-	78,030	-
2026	78,030	-	78,030	-
2027	78,030	-	78,030	-
2028	78,030	-	78,030	-
2029	32,780	3,121,190	32,780	3,121,190
Total	<u>\$ 422,928</u>	<u>\$ 3,121,190</u>	<u>\$ 422,928</u>	<u>\$ 3,121,190</u>

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED) **JUNE 30, 2023**

(4) Long-Term Debt (Continued)

Asset Retirement Obligation (ARO)

South Dakota Science and Technology Authority has deemed there would be costs associated with closing the SURF facility, if abandoning the site would occur. Outside regulatory agencies that would be involved with oversight of the closure would be the U.S. Environmental Protection Agency, and the South Dakota Department of Agriculture and Natural Resources. The capital assets on SDSTA's financial statements that would be included in the asset retirement obligation are land, above ground and underground infrastructure, and buildings. We used a team of internal experts to develop the estimate including: mining engineers, mechanical engineers, construction managers, heavy equipment experts, all with expertise in mining, underground, and environmental industries. The methods and assumptions used by these experts were to estimate hours associated with completing the below tasks using a current average salary and benefit rate, plus any associated contractor fees. Using these assumptions, they have determined the below actions would need to be taken and associated costs incurred:

SDSTA Estimate: SURF Site Closure Cost	
Project 1. Shutdown Dewatering System	\$ 19,813
Project 2. Secure Surface to UG Access Points	123,427
Project 3. Remove Underground Hazardous Materials	170,660
Project 4. Underground Inspection/Documentation	259,460
Project 5. Utility Reduction	8,403
Project 6. Secure Surface Area(s) and Building	72,213
Project 7. Secure Yates Shaft Entrance	116,071
Project 8. Secure Ross Shaft Entrance	116,071
Project 9. Secure Oro Hondo Shaft Entrance	79,391
Project 10. Secure 5 Shaft Entrance	137,822
Project 11. Remove Hoists from Service	31,450
Project 12. Remove Hazardous Material from Surface	62,103
Grand Total	\$ 1,196,885

Per our land donation agreement from Homestake Mining Company in 2006, we assumed all liability for closure, and were obligated to restrict \$1,000,000 for such an event; SDSTA complied with this agreement. Since then, interest has accrued and been restricted by SDSTA; current restricted and separately reported cash on hand for site abandonment is \$1,594,680.

For calculating useful life of this liability, we correlate to our relationship with LBNF/DUNE (Long Based Neutrino Facility/Deep Underground Neutrino Experiment). This relationship is expected to continue until 2045 per the Snowmass/P5 (Particle Physics Project Prioritization Panel), thus we deem a conservative useful life of 30 years.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED) **JUNE 30, 2023**

(5) Xenon Purchases

Xenon purchased is valued at a cost per liter with additional freight, customs, and analysis charges. Total Xenon purchased to date is \$8,687,833 as shown by the detail below.

<u>Fiscal Year</u>	<u># of Liters</u>	<u>Total Cost</u>	<u>Average Cost/Liter</u>
2014	20,000	\$332,855	\$16.64/liter
2016	200,000	1,273,808	6.37/liter
2017	600,295	3,433,693	5.72/liter
2018	260,000	1,473,544	5.67/liter
2019	300,000	1,650,450	5.50/liter
2020	140,000	770,000	5.50/liter
2023	(45,274)	(246,517)	5.89/liter
Total Purchased	1,475,021	\$8,687,833	\$ 5.89/liter

(6) Retirement/Pension Plan

Plan Information:

All employees, working more than 20 hours per week during the year, participate in the South Dakota Retirement System (SDRS), a cost sharing, multiple employer hybrid defined benefit pension plan administered by SDRS to provide retirement benefits for employees of the State of South Dakota and its political subdivisions. The SDRS provide retirement, disability, and survivor benefits. The right to receive retirement benefits vests after three years of credited service. Authority for establishing, administering, and amending plan provisions are found in SDCL 3-12. The SDRS issues a publicly available financial report that includes financial statements and required supplementary information. That report may be obtained at <http://sdrs.sd.gov/publications.aspx> or by writing to the SDRS, P.O. Box 1098, Pierre, SD 57501-1098 or by calling (605) 773-3731.

Benefits Provided:

SDRS has four classes of members: Class A general members, class B public safety and judicial members, Class C Cement Plant Retirement Fund members, and Class D Department of Labor and Regulation members.

Members that were hired before July 1, 2017, are Foundation members. Class A Foundation members and Class B Foundation members who retire after age 65 with three years of contributory service are entitled to an unreduced annual retirement benefit. An unreduced annual retirement benefit is also available after age 55 for Class A Foundation members where the sum of age and credited service is equal to or greater than 85 or after age 55 for Class B Foundation judicial members where the sum of age and credited service is equal to or greater than 80. Class B Foundation public safety members can retire with an unreduced annual retirement benefit after age 55 with three years of contributory service. An unreduced annual retirement benefit is also available after age 45 for Class B Foundation public safety members where the sum of age and credited service is equal to or greater than 75. All Foundation retirement benefits that do not meet the above criteria may be payable at a reduced level. Class A and B eligible spouses of foundation members will receive a 60 percent joint survivor benefit when the member dies.

Members that were hired on/after July 1, 2017, are Generational members. Class A Generational members and Class B Generational judicial members who retire after age 67 with three years of contributory service are entitled to an unreduced annual retirement benefit. Class B Generational public safety members can retire with an unreduced annual retirement benefit after age 57 with three years of contributory service. At retirement, married Generational members may elect a single-life benefit, a 60 percent joint and survivor benefit, or a 100 percent joint and survivor benefit. All Generational retirement benefits that do not meet the above criteria may be payable at a reduced level. Generational members will also have a variable retirement account (VRA) established, in which they will receive up to 1.5 percent of compensation funded by part of the employer contribution. VRA's will receive investment earnings based on investment returns.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED) **JUNE 30, 2023**

(6) Retirement/Pension Plan (Continued)

Legislation enacted in 2017 established the current COLA process. At each valuation date:

- Baseline actuarial accrued liabilities will be calculated assuming the COLA is equal to the long-term inflation assumption of 2.25%.
- If the fair value of assets is greater or equal to the baseline actuarial accrued liabilities, the COLA will be:
 - The increase in the 3rd quarter CPI-W, no less than 0.5% and no greater than 3.5%.
- If the fair value of assets is less than the baseline actuarial accrued liabilities, the COLA will be:
 - The increase in the 3rd quarter CPI-W, no less than 0.5% and no greater than a restricted maximum such that, that if the restricted maximum is assumed for future COLA's, the fair value of assets will be greater or equal to the accrued liabilities.

Legislation enacted in 2021 reduced the minimum COLA from 0.5 percent to 0.0 percent.

All benefits except those depending on the Member's Accumulated Contributions are annually increased by the Cost-of-Living Adjustment.

Contributions:

Per SDCL 3-12, contribution requirements of the active employees and the participating employers are established and may be amended by the SDRS Board. Covered employees are required by state statute to contribute the following percentages of their salary to the plan; Class A Members 6.0% of salary; Class B Judicial Members, 9.0% of salary; and Class B Public Safety Members, 8.0% of salary. State Statute also requires the employer to contribute an amount equal to the employee's contribution. The SDSTA's share of contributions to the SDRS for the fiscal years ended June 30, 2023, 2022, and 2021, equal to required contributions each year, were as follows: \$962,630, \$880,457, and \$841,062, respectively.

Pension Liabilities (Assets), Pension Expense (Revenue), and Deferred Outflows of Resources and Deferred Inflows of Resources to Pensions:

As of June 30, 2022, SDRS is 100.1% funded and accordingly has a net pension asset. The proportionate share of the components of the net pension asset of the South Dakota Retirement System for the SDSTA as of the measurement period ending June 30, 2022, and reported by the SDSTA as of June 30, 2023, are as follows:

Proportionate share of pension liability	\$ 86,752,272
Less Proportionate share of net pension restricted for pension benefits	86,810,350
Proportionate share of net pension liability (asset)	<u>\$ (58,078)</u>

At June 30, 2023, the SDSTA reported a liability (asset) of \$ (58,078) for its proportionate share of the net pension liability (asset). The net pension liability (asset) was measured as of June 30, 2022, and the total pension liability (asset) used to calculate the net pension asset was based on a projection of the SDSTA's share of contributions to the pension plan relative to the contributions of all participating entities. At June 30, 2022, the SDSTA's proportion was 0.61454000% which is an decrease of 0.0031640% from its proportion measured as of June 30, 2021.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED) **JUNE 30, 2023**

(6) Retirement/Pension Plan (Continued)

For the year ended June 30, 2023, the SDSTA recognized pension expense of \$431,646. At June 30, 2023, the SDSTA reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows Of Resources	Deferred Inflows Of Resources
Difference between expected and actual experience.	\$ 1,105,558	\$ 3,770
Changes in assumption.	3,691,253	3,234,889
Net Difference between projected and actual earnings on pension plan investments.	-	139,182
Changes in proportion and difference between SDSTA contributions and proportionate share of contributions.	5,586	70,075
SDSTA contributions subsequent to the measurement date.	962,630	-
TOTAL	\$ 5,765,027	\$ 3,447,916

\$962,630 reported as deferred outflow of resources related to pensions resulting from the SDSTA's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending June 30, 2024. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense (revenue) as follows:

Year Ended June 30:

2024	\$ 324,669
2025	796,978
2026	(918,354)
2027	1,151,187
TOTAL	\$ 1,354,480

Actuarial Assumptions:

The total pension liability (asset) in the June 30, 2022, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.25 %
Salary Increases	Graded by year of service, from 7.66% at entry to 3.15% after 25 years of service.
Discount Rate	6.50% net of plan investment expense. This is composed of an average inflation rate of 2.50% and real returns of 4.00%
Future COLAs	2.10%

All mortality rates are based on Pub-2010 amount-weighted mortality tables, projected generationally with improvement scale MP-2020

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED) JUNE 30, 2023

(6) Retirement/Pension Plan (Continued)

Active and Terminated Vested Members:

Teachers, Certified Regents, and Judicial: PubT-2010

Other Class A Members: PubG-2010

Public Safety Members: PubS-2010

Retired Members:

Teachers, Certified Regents, and Judicial Retirees: PubT-2010, 108% of rates above age 65

Other Class A Retirees: PubG-2010, 93% of rates through age 74, increasing by 2% per year until 111% of rates at age 83 and above.

Public Safety Retirees: PubS-2010, 102% of rates at all ages

Beneficiaries:

PubG-2010 contingent survivor mortality table

Disabled Members:

Public Safety: PubS-2010 disabled member mortality table

Others: PubG-2010 disabled member mortality table

The actuarial assumptions used in the June 30, 2022, valuation was based on the results of an actuarial experience study for the period of July 1, 2016, to June 30, 2021.

Investment portfolio management is the statutory responsibility of the South Dakota Investment Council (SDIC), which may utilize the services of external money managers for management of a portion of the portfolio. SDIC is governed by the Prudent Man Rule (i.e., the council should use the same degree of care as a prudent man). Current SDIC investment policies dictate limits on the percentage of assets invested in various types of vehicles (equities, fixed income securities, real estate, cash, private equity, etc.). The long-term expected rate of return on pension plan investments was determined using a method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighing the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2022 (see the discussion of the pension plan's investment policy) are summarized in the following table using geometric means:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Global Equity	58.00%	3.70%
Fixed Income	30.00%	1.10%
Real Estate	10.00%	2.60%
Cash	2.00%	0.40%
Total	<u>100%</u>	<u>2.70%</u>

Discount Rate:

The discount rate used to measure the total pension liability (asset) was 6.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that matching employer contributions will be made at rates equal to the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability (asset).

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

JUNE 30, 2023

(6) Retirement/Pension Plan (Concluded)

Sensitivity of (liability) to changes in the discount rate:

The following presents the SDSTA's proportionate share of the net pension liability (asset) calculated using the discount rate of 6.50% as well as what the SDSTA's proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage point lower (5.50%) or 1-percentage point higher (7.50%) than the current rate:

	<u>1% Decrease</u>	<u>Current Discount Rate</u>	<u>1% Increase</u>
SDSTA's proportionate share of the net pension liability (asset)	\$12,059,339	\$ (58,078)	\$(9,961,209)

Pension Plan Fiduciary Net Position:

Detailed information about the plan's fiduciary net position is available in the separately issued SDRS financial report.

(7) Risk Management

The SDSTA is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. There were no insurance claims exceeding insurance coverage during the past three years. During the period ended June 30, 2023, the SDSTA managed its risks as follows:

Building Structure Charges:

The buildings and permanent structures owned by the SDSTA are not covered by commercial insurance. However, the recently erected MSF and the SLHVC is covered by commercial insurance.

Personal Property Insurance:

The SDSTA purchases insurance for the contents of the administration building from a commercial insurance carrier. However, the contents of the SDSTA's other buildings are not insured.

Employee Health Insurance:

The SDSTA purchases health insurance for its employees from a commercial insurance carrier. Settled claims resulting from these risks have not exceeded the liability coverage during the past three years.

Liability Insurance:

The SDSTA purchases liability insurance for risks related to torts, theft or damage of property, errors and omissions of public officials, employee practices liability coverage, employee dishonesty, cybersecurity, and professional engineers' coverage through its participation in the South Dakota Authority Captive Insurance Company, a component unit of the State of South Dakota. Additional liability coverage including auto liability coverage and environmental liability is purchased from commercial insurance carriers. Settled claims resulting from these risks have not exceeded the liability coverage during the past three years.

Worker's Compensation:

For the policy renewal date of January 1, 2022, through January 1, 2023, the SDSTA continued to purchase workers' compensation through a commercial insurance carrier. Settled claims resulting from these risks have not exceeded the liability coverage during the past three years.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

JUNE 30, 2023

(7) Risk Management (Continued)

Unemployment Benefits:

The SDSTA provides coverage for unemployment benefits by paying into the Unemployment Compensation Fund established by state law and managed by the State of South Dakota.

(8) Significant Commitments, Contracts, and Subsequent Events

On December 23, 2009, the SDSTA received \$20,000,000 designated as Sanford Gift No.2. Gift No.2 was originally established for the construction of the Sanford Center for Science Education. Two amendments to the Homestake Gift Agreement were signed in June 2010 and October 2011, respectively, whereby it was agreed to use \$15 million of this \$20 million for infrastructure and safety upgrades at the Underground Davis Campus and for replacing steel and other rehabilitation of the Ross Shaft. In early August 2012, the SDSTA signed a third amendment to the Gift Agreement and received the remaining \$15 million of Gift No.2 called for by Section 2 of the Gift Agreement. The Gift No.2 balance of \$20 million was to be held in a restricted fund whereby the principal was not to be expended until a written approval of a business and operational plan for the Sanford Center for Science Education was received from Mr. Sanford. Furthermore, the third amendment allowed the SDSTA to utilize and expend interest and other earnings on Gift No.2 restricted funds. In May, 2013, the SDSTA signed a fourth amendment to the Gift Agreement whereby it was agreed to expend up to \$7,000,000 of Gift No.2 for the construction or remodeling of the Yates Dry Building (located at SURF), the remodeling or replacement of the Lead Homestake Visitor's Center and the remodeling of Jonas Hall (located on the campus of Black Hills State University in Spearfish, SD). This authorization was conditioned on the SDSTA raising \$1.5 million from other sources for the Black Hills State University project and \$1 million for the SURF Homestake Visitor's Center (SLHVC) in Lead. The SDSTA secured a \$2 million Future Fund grant from the State of South Dakota in October 2013 and an additional \$500,000 was received in July 2014 from Great Plains Education Foundation that satisfied this monetary obligation. Both outside facilities agreed in writing to incorporate and use the name "Sanford" in the naming of the facilities. Operating agreements are in place which provide for the ongoing operations of the respective facilities by the Homestake Visitor Center, Inc. and Black Hills State University. Given the construction budget of the SLHVC and the Jonas Science Building renovation costs, it was not possible to undertake the upgrades to the Yates Dry. These details were reported in the Fifth Amendment to the Homestake Gift Agreement in February 2015. Furthermore, any part of Gift No.2 not used for the three construction projects may be used for the construction and operation of additional underground laboratory space at SURF to accommodate other experiments, and for related infrastructure to access or support the new laboratory space through the shafts. After the above projects were finished approximately \$1,000,000 remained. On June 23, 2016, the sixth amendment was signed allowing the SDSTA to use the remaining funds to purchase real estate known as "Ellison Hill" and to conduct needed environmental assessments and remediation of the property. This will provide needed storage and construction material laydown space for the LBNF and DUNE projects. The "Ellison Hill" property was purchased in May 2017. The cost of this remediation was shared equally by the SDSTA and Homestake Mining Company per the purchase agreement.

With additional change orders, the contract amount was decreased to \$302,319. Remediation of the property was completed in November 2017. At fiscal yearend 2023, a balance of \$10 remained as Gift No. 2 funds. This will be transferred to the SDSTA's operating account.

The SDSTA's long-term cooperative agreement with Homestake Mining Company of California continues. The SDSTA agrees to combine Homestake's wastewater from Grizzly Gulch with the mine wastewater, as well as treat, and discharge the water. For the first year of this agreement, Homestake agreed to pay the SDSTA an amount ranging from \$.58 to \$.84 per 1000 gallons based on average total gallons treated per minute per month. Revenue from this agreement for the past two years was \$123,902 and \$205,127, respectively. Revenue was lower this last year due to the number of gallons treated being lower. The terms of the agreement were amended in September 2020 adjusting the price per 1000 gallons to \$.75 and extending this price and the contract to September 30, 2030. Estimated revenues for the upcoming year are at \$240,000.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

JUNE 30, 2023

(8) Significant Commitments, Contracts, and Subsequent Events (Continued)

A lease between the SDSTA and DOE for land (above ground) and space (underground) for the LBNF was signed on March 29, 2016. The term of the lease goes through April 30, 2036, but shall remain in force thereafter from year to year without further notice but shall in no event extend beyond a total of 65 years. Additional amendments to this lease executed in June 2017 and May 2018 (Amendment #1 and Amendment #2) added additional space in the Ross Dry Facility in support of the Long Baseline Neutrino Facility. An easement was signed with Homestake Mining Company for the construction and maintenance of conveyor facilities for the transportation of excavated rock to the Open Cut (open mine pit) owned by Homestake. The LBNF will include a large experimental facility underground at the 4850' L. Waste rock excavated from that level will be deposited into the Open Cut. An additional easement was negotiated with the City of Lead across their property to construct, maintain, and operate this overhead conveyance system. The conveyance system has been constructed and waste rock is being transported into the Open Cut starting June 2021.

Homestake Mining Company agreed with the signing of the Third Amendment to the Property Donation Agreement in August 2015 to release \$2,500,000 from the Indemnification Fund for the SDSTA to fund the captive insurance company. The original appropriation for the indemnification fund found at 2004 SD Session Laws, Chapter 14, Section 1 was revised by the State Legislature per Legislative Session 2015 HB 1186, to allow the use of up to \$2,500,000 to provide initial capital and pay expenses for the SDSTA's purposes in the captive insurance company.

Letter Agreement #1586 was signed in August 2015 between the GOED and the SDSTA whereby the State is granting up to \$6,000,000 between July 14, 2015, and September 30, 2018. The State has chosen to engage in a partnership with the SDSTA, the South Dakota Community Foundation, the South Dakota State University Foundation, and the University of South Dakota Foundation to assist with the costs of infrastructure/laboratory upgrades, procurement of xenon for the LUX-ZEPLIN (LZ) dark matter experiment, and interest payments to these foundations. The full \$6,000,000 has been received from the State as well as \$2,000,000 each from the South Dakota Community Foundation, the University of South Dakota Foundation, and the South Dakota State University Foundation. Loan agreements are in place between the SDSTA and the three foundations for a total of \$6,000,000 to be used for the purchase of xenon for the future LZ experiment. The loans extend to the last quarter of 2026. They are unsecured nonrecourse loans with 2.5% simple interest to be paid quarterly to each lender. The loans will be repaid at the end of the LZ experiment (approximately October 2026) from the sale proceeds of the xenon previously purchased. A total of 1,520,295 liters of xenon have been purchased for experiment use. The processed xenon has all been received at SURF and is being used in the LZ experiment.

On November 7, 2022, the SDSTA signed a Promissory Note with the First Interstate Bank for \$5,000,000. This agreement represents a variable rate revolving line of credit. Collateral for this line of credit includes the SDSTA's Account Receivable. The SDSTA has not drawn down any funding from this line of credit. The maturity date is October 31, 2023, at which time we will renew for another one-year term.

On March 9, 2023, SDSTA signed a five-year commitment for annual sponsorship to the Washington Pavilion in Sioux Falls, South Dakota, for the Water Experience exhibit, totaling \$75,000. The Washington Pavilion is eastern South Dakota's home for the arts, entertainment, and science.

The State of South Dakota appropriated \$13 million of general fund moneys through Senate Bill 35 during the 2023 legislative session, for the purposes of expanding laboratory space at the Sanford Underground Research Facility. The SDSTA will contract with Thyssen Mining Incorporated to work on this project.

In July 2023 SDSTA entered into an Owners Interest Insurance Policy that covers the LBNF/DUNE project as well as SDSTA Underground Expansion Project. The total premium cost is \$2,316,669. Fermi Research Alliance will reimburse \$2,262,051 of the cost and the remaining \$54,518 will be paid from SDSTA funds. To cash flow this purchase SDSTA entered into a loan for \$1,620,969 to cover the initial costs of the policy. This loan will be paid in full by March 2024.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

JUNE 30, 2023

(9) Significant Contingencies - Litigation

At June 30, 2023, the SDSTA engaged in no lawsuits.

(10) Construction Work in Process

The SDSTA accumulates the costs of construction projects in Construction Work in Progress until the project is completed and/or placed in service. Some of the ongoing improvement projects are capitalized as they progress. As of June 30, 2023, construction work in progress was at \$6,192,248.

(11) Continuing Operations

On September 30, 2019, the SDSTA transitioned to a five-year Cooperative Agreement totaling to date \$122,134,028 with the DOE's Office of Science – Integrated Support Center. This will fund the SDSTA's operations for SURF. The federal fiscal year 2024 budget totals \$26,661,651. Additionally, SDSTA has been awarded \$28,211,522 in Infrastructure Improvement Projects (IIPs) with \$16,909,525 spent through FY2023; \$9,000,000 has been budgeted in FY2024. We have proposed for fiscal year 2024 and 2025 approximately \$24M of additional IIPs that will be awarded separately, if approved. LBNF/DUNE Logistics Support Services continues with Fermi National Accelerator Laboratory (FNAL) through March 31, 2024. Additionally, SDSTA support for the LZ experiment operations through a DOE grant have been extended to February 2024. DOE has requested SDSTA to submit a proposal to continue operations via a Cooperative Agreement with the Office of Science for the periods 2025-2029, award will likely be an extension of the current CA but is yet to be determined.

(12) Related Party Transactions

The SDSTA has a consulting contract with Dialogue, LLC, which is a company owned and operated by the SDSTA Executive Director's spouse. The consultant reports to the Chairman of the Board of Directors under this agreement and not the Executive Director. All contract and invoice payments to Dialogue LLC, were signed and approved by the SDSTA's Chairman of the Board of Directors. Payments totaled \$34,950 in FY2023. Additionally, SDSTA entered into a contract for marketing consulting services with Turner Lee Consulting & Design, which is owned and operated by the SDSAT Foundation Board President on July 26, 2022, and will terminate on July 25, 2023. The consultant reports to the SDSTA Executive Director. Payments totaled \$15,100 in FY2023.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
JUNE 30, 2023

(13) Blended Component Unit Condensed Financial Information

SANFORD UNDERGROUND RESEARCH FACILITY FOUNDATION
CONDENSED STATEMENT OF NET POSITION
JUNE 30, 2023

ASSETS

Current Assets

Cash in Local Bank	\$	609,670
Accounts Receivable		-
Contributions Receivable		30,000
Total Current Assets		639,670

TOTAL ASSETS **639,670**

NET POSITION

Restricted for:

Davis-Bachall	45,000
Garden	517,113
Interns	31,013
Public Outreach	33,331
Visitor Center	396
Unrestricted Net Position	12,817

TOTAL NET POSITION **\$ 639,670**

CONDENSED STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
JUNE 30, 2023

Restricted Revenue

Garden	\$	123,095
Interns		19,681
Public Outreach		8,500
STEM Education		29,667
Visitor Center		2,718
Miscellaneous and Unrestricted Revenue		23,332
Total Revenue		206,993

Expenses

Miscellaneous Expenses	\$	10,953
Payments to Primary Government		24,816
Total Expenses		35,769

Change in Net Position **171,224**

Net Position -- Beginning of Year **468,446**

Net Position -- End of Year **\$ 639,670**

CONDENSED STATEMENT OF CASH FLOWS
JUNE 30, 2022

Cash Provided from Operating Activities		
Cash Received from Donations	\$	166,040
Cash Payments for Operating Activities		24,816
Net Increase in Cash and Cash Equivalents		141,224
Cash and Cash Equivalents at Beginning of Year		468,446
Cash and Cash Equivalents at End of Year	\$	609,670

REQUIRED SUPPLEMENTARY INFORMATION OTHER THAN MD&A

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY
REQUIRED SUPPLEMENTARY INFORMATION
Schedule of the Proportionate Share of the Net Pension Liability (Asset) and
Schedule of the SDSTA Contributions

SCHEDULE OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY (ASSET)

South Dakota Retirement System

Last 10 Fiscal Years *

	2023	2022	2021	2020	2019	2018	2017	2016	2015
SDSTA's proportion of the net pension liability (asset)	0.6145400%	0.6177040%	0.5665885%	0.4949484%	0.4444633%	0.4881662%	0.5027360%	0.5089089%	0.5287996%
SDSTA's proportionate share of net pension liability (asset)	\$ (58,078)	\$ (4,730,555)	\$ (24,607)	\$ (52,451)	\$ (10,366)	\$ (44,302)	\$ 1,698,193	\$ (2,158,428)	\$ (3,809,788)
SDSTA's covered employer payroll	\$ 14,431,476	\$ 13,727,913	\$ 12,193,592	\$ 10,237,119	\$ 8,995,993	\$ 9,596,007	\$ 9,256,007	\$ 9,042,866	\$ 8,888,749
SDSTA's proportionate share of the net pension liability (asset) as a percentage of its covered-employee payroll	0.40%	34.46%	0.20%	0.51%	0.12%	0.46%	18.35%	23.87%	42.86%
Plan fiduciary net position as a percentage of the total pension liability (asset)	100.10%	105.52%	100.04%	100.09%	100.02%	100.10%	96.89%	104.10%	107.30%

* The amounts presented for each fiscal year were determined as of the measurement date of the collective net pension liability (asset) which is 6/30 of previous fiscal year. Until a full 10-year trend is compiled, the SDSTA will present information for those years for which information is available.

SCHEDULE OF THE AUTHORITY CONTRIBUTIONS

South Dakota Retirement System

Last 10 Fiscal Years

	2023	2022	2021	2020	2019	2018	2017	2016	2015
Contractually required contribution	\$ 962,630	\$ 880,457	\$ 841,062	\$ 746,095	\$ 631,417	\$ 554,398	\$ 595,112	\$ 573,626	\$ 557,420
Contributions in relation to the contractually required contribution	\$ 962,630	\$ 880,457	\$ 841,062	\$ 746,095	\$ 631,417	\$ 554,398	\$ 595,112	\$ 573,626	\$ 557,420
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SDSTA's covered-employee payroll	\$ 15,829,925	\$ 14,431,476	\$ 13,727,913	\$ 12,193,592	\$ 10,237,119	\$ 8,995,993	\$ 9,596,007	\$ 9,256,007	\$ 9,042,866
Contributions as a percentage of covered-employee payroll	6.08%	6.10%	6.13%	6.12%	6.17%	6.16%	6.20%	6.20%	6.16%

* Until a full 10-year trend is compiled, the SDSTA will present information for those years for which information is available.

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY
REQUIRED SUPPLEMENTARY INFORMATION
Schedule of the Proportionate Share of the Net Pension Liability (Asset) and
Schedule of the SDSTA Contributions (Continued)

Changes from Prior Valuation

The June 30, 2022, Actuarial Valuation reflects numerous changes to the actuarial assumptions as a result of an experience analysis completed since the June 30, 2021, Actuarial Valuation. In addition, two changes in actuarial methods have been implemented since the prior valuation.

The details of the changes since the last valuation are as follows:

Benefit Provision Changes

During the 2022 Legislative Session no significant SDRS benefit changes were made and gaming enforcement agents became Class B Public Safety Members.

Actuarial Assumption Changes

As a result of an experience analysis covering the period from July 1, 2016 to June 30, 2021 and presented to the SDRS Board of Trustees in April and June, 2022, significant changes to the actuarial assumptions were recommended by the SDRS Senior Actuary and adopted by the Board of Trustees first effective for this June 30, 2022 actuarial valuation.

The changes to economic assumptions included increasing the price inflation to 2.50% and increasing the wage inflation to 3.15%. The current assumed investment return assumption of 6.50% was retained, lowering the assumed real investment return to 4.00%. The baseline COLA assumption of 2.25% was also retained. Salary increase assumptions were modified to reflect the increase in assumed wage inflation and recent experience. The assumed interest on accumulated contributions was decreased to 2.25%.

The demographic assumptions were also reviewed and revised. The mortality assumption was changed to the Pub-2010 amount-weighted tables using separate tables for teachers, general, and public safety retirees, with assumptions for retirees adjusted based on credible experience. The mortality assumption for active and terminated vested members was changed to the unadjusted amount-weighted Pub-2010 tables, again by member classification and the assumption for beneficiaries was changed to the amount-weighted Pub-2010 general contingent survivor table. Adjustments based on experience were also made to the assumptions regarding retirement, termination, disability, age of spouses for married Foundation members, percentage of terminated vested members electing a refund, and benefit commencement age for terminated vested Public Safety members with 15 or more years of service.

The SDRS COLA equals the percentage increase in the most recent third calendar quarter CPI-W over the prior year, no less than 0% (0.5% prior to 2021) and no greater than 3.5%. However, if the FVFR assuming the long-term COLA is equal to the baseline COLA assumption (currently 2.25%) is less than 100%, the maximum COLA payable will be limited to the increase that if assumed on a long-term basis, results in a FVFR equal to or exceeding 100%.

As of June 30, 2021, the FVFR assuming the long-term COLA is equal to the baseline COLA assumption (2.25%) was greater than 100% and the full 0% to 3.5% COLA range was payable. For the June 30, 2021, Actuarial Valuation, future COLAs were assumed to equal the baseline COLA assumption of 2.25%.

As of June 30, 2022, the FVFR assuming future COLAs equal to the baseline COLA assumption of 2.25% is less than 100% and the July 2023 SDRS COLA is limited to a restricted maximum of 2.10%. The July 2023 SDRS COLA will equal inflation, between 0% and 2.10%. For this June 30, 2022, Actuarial Valuation, future COLAs were assumed to equal the restricted maximum COLA of 2.10%.

Actuarial assumptions are reviewed for reasonability annually and reviewed in depth periodically, with the next experience analysis anticipated before the June 30, 2027, Actuarial Valuation and any recommended 7 changes approved by the Board of Trustees are anticipated to be first implemented in the June 30, 2027, Actuarial Valuation.

Actuarial Method Changes

Actuarial method changes with minor impact were implemented for this valuation after recommendation by Cavanaugh Macdonald Consulting as part of their reviews of prior valuations. As a result, liabilities and normal costs for refund benefits and the Generational Variable Retirement Account are now calculated using the entry age normal cost method with normal costs based on the expected value of these accounts rather than the actual balance.

SUPPLEMENTARY INFORMATION

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

**SCHEDULE OF OPERATING EXPENSES
FOR THE YEAR ENDED JUNE 30, 2023**

Personnel Services	
Employee Salaries	\$ 13,534,227
Employee Benefits	7,045,457
Total Personal Services	20,579,684
Travel	
Meals and Lodging	159,991
Auto and Fleet Services	50,334
Air - Commercial and Charter	68,154
Incidentals to Travel	13,252
Non-Employee Travel	4,630
Meals (Not Overnight)	-
Total Travel	296,362
Contractual Services	
Equipment Rental	77,189
Contractual - Other	3,000,379
Insurance	1,407,874
Lobbying	299,982
Computer Services	16,007
Telecommunications	102,384
Monitoring and Programming	25,820
Legal Consultant	104,341
Training	140,291
Consultant Fees - Accounting and Auditing	43,363
Promotion and Advancement	55,978
Dues and Memberships	26,251
Utilities	2,481,469
Maintenance and Repairs	109,224
Total Contractual Services	7,890,552
Supplies, Materials and Other Operating Expenses	
Maintenance and Repairs	2,681,710
Other Supplies and Equipment	770,552
Other Expenses	195,615
Office Supplies and Equipment	19,997
Licenses and Permits	48,863
Workshop and Registration Fees	12,002
Postage	2,840
Bank Charges	2,050
Total Supplies, Materials and Other Operating Expenses	3,733,628
Depreciation Expense	2,767,474
Total Operating Expenses	\$ 35,267,701

SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

SUPPLEMENTAL SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS FOR THE YEAR ENDED JUNE 30, 2023

	Pass-Through Numbers	Federal AL Number	Amount
<i>U.S. Department of Energy</i>			
Pass-Through the Regents of the University of California LUX/Zeplin (LZ) Experiment Operations - Engineer/Research Supp.	7525117	81.UNKNOWN	\$ 1,132
<i>U.S. Department of Energy</i>			
Pass-Through the Regents of the University of California LBNL SIGMA-V Project	7371823	81.UNKNOWN	\$ 47,672
<i>U.S. Department of Energy</i>			
Pass-Through Oak Ridge National Laboratory Experiment Support for Majorana Demonstrator	4000193681	81.UNKNOWN	\$ 8,042
<i>U.S. Department of Energy</i>			
Pass-Through the Regents of the University of California LUX/Zeplin (LZ) Experiment Operations - Engineer/Research Supp.	7650068	81.UNKNOWN	\$ 72,637
<i>U.S. Department of Energy</i>			
Pass-Through Fermi National Accelerator Laboratory SURF(Sanford Underground Research Facility)LBNF/DUNE Support	674969	81.UNKNOWN	\$ 4,829,726
<i>U.S. Department of Energy</i>			
Pass-Through Fermi National Accelerator Laboratory SURF(Sanford Underground Research Facility)LBNF Prof.Staff Serv.	671265	81.UNKNOWN	\$ 171,162
<i>U.S. Department of Energy</i>			
Pass-Through RESPEC Thermal Breakout Project	03506A	81.UNKNOWN	\$ 416
<i>U.S. Department of Energy</i>			
Office of Science - Chicago Office of Acquisition/Assistance	HEBYAQ8MUEU3	81.049	\$ 30,558,122
<i>U.S. Department of Energy</i>			
Office of Science - Chicago Office of Acquisition/Assistance	HEBYAQ8MUEU3	81.049	\$ 984,176
<i>National Nuclear Security Administration</i>			
Pass-Through South Dakota School of Mines & Technology Small Business Technology Transfer Program	CT001412	81.RD	\$ 24,767
<i>National Aeronautics & Space Administration</i>			
Pass-Through South Dakota School of Mines & Technology South Dakota Space Grant Consortium	80NSSC20M0040	43.UNKNOWN	\$ 2,360
Total			\$ 36,700,212

Note: The schedule of expenditures of federal awards is presented on the cash basis of accounting.

Approve 4850L bypass drift contract—Mr. Mike Headley

Contract between SDSTA and TMI for 4850L bypass drift. (*see recommended motion below*)

Recommended Action:

Motion to approve contract with TMI to perform 4850L bypass drift work as presented, to authorize the executive director and chairperson of the board, in consultation with legal counsel, to negotiate the final terms of the contract, and to authorize the chairperson to sign the contract.

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**SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY
SANFORD UNDERGROUND RESEARCH FACILITY
LEAD, SOUTH DAKOTA**

**AGREEMENT FOR CONSTRUCTION
SDSTA CONTRACT #2023-34
4850L UNDERGROUND LAB EXPANSION: BUILD**

THIS Agreement is made the **XX** day of December 2023, by and between **THYSSEN MINING, INC.**, 377 Sunshine Lane, Spring Creek, NV 89815 (the "Contractor") and the **SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY**, 630 East Summit Street, Lead, SD 57754 (the "Owner").

WITNESSETH, that the Contractor and the Owner for the consideration stated herein agree as follows:

**ARTICLE I
CONTRACT DOCUMENTS**

The following documents and any other documents incorporated in them by reference constitute the Contract Documents:

1. This Agreement for Construction
2. General Conditions including all attachments thereto
3. Request for Proposal 2023-34 with accompanying specifications and drawings
4. Contractor's Proposal dated **XXX**, 2023
5. Contractor's ESH Qualification Questionnaire
6. Construction ESH Manual

These documents and exhibits thereto constitute the entire and integrated agreement between the parties hereto and supersede prior negotiations, representations, or agreements, either written or oral. In the event of any inconsistency between the Contractor's Proposal and the terms of this Contract or any other Exhibit hereto, the terms of this Contract or such other Exhibit shall govern.

**ARTICLE II
STATEMENT OF WORK**

To the extent not otherwise provided in the Contract Documents, Contractor shall furnish and pay for all labor, tools, equipment, supplies, materials, appurtenances, utilities, charges, fees, permits, and all other construction accessories and services required to complete the work specified in the Request for Proposal, attachments thereto, and Exhibit C to the General Conditions.

**ARTICLE III
DATE OF COMMENCEMENT AND COMPLETION**

The work shall be commenced within ten (10) consecutive calendar days after the date of issuance of the Notice to Proceed (NTP) by the Owner and shall be substantially completed no later than **XXX** days from NTP, subject to adjustments of the contract time as provided in the Contract Documents.

**ARTICLE IV
CONTRACT SUM**

Agreement for Construction
Page 1 of 3

- A. For the performance of the work specified in the Contract Documents, Owner will pay Contractor and Contractor will accept as full compensation a sum not-to-exceed the amount of Contractor's proposal amount for each request of work. Nothing in this Agreement shall require the SDSTA to accept any proposal made my Contractor. In no event may the total amount paid to Contractor during the term of this Contract exceed **\$XXX (DOLLARS)**.
- B. The contract sum includes the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner: **None**
- C. Unit Prices, if any, are as follows: **None**

ARTICLE V PROGRESS PAYMENTS

The Owner shall make progress payments on a monthly basis for work accomplished in accordance with General Conditions, Article 10.

ARTICLE VI ACCEPTANCE AND FINAL PAYMENT

Final payment less amounts withheld to cover the cost of nonconforming work, shall be made by the Owner in accordance with General Conditions Article 10.7.

ARTICLE VII NOTICE

All notices, demands and other communications required by the Contract Documents shall be in writing and shall be deemed to have been duly given if personally delivered, mailed first class (postage prepaid), or e-mailed:

If to Contractor:

Steve White
US Area Manager
377 Sunshine Lane
Spring Creek, NV 89815
swhite@thyssenmining.com

If to Owner:

Mike Headley
Executive Director
SD Science and Technology Authority
630 East Summit Street
Lead, SD 57754
605-722-8650
mheadley@sanfordlab.org

Timothy M. Engel
Counsel for the SDSTA
May, Adam, Gerdes and Thompson LLP
503 S. Pierre Street
P.O. Box 160
Pierre, SD 57501
605-224-8803

Either party may change the addresses set forth for notice herein upon written notice thereof to the other.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed in one original counterpart the day and year above first written:

CONTRACTOR: THYSSEN MINING, INC.

By: _____
Date
Title: _____

(Affix Corporate Seal if Available)

OWNER: SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

Casey Peterson
Chairperson, Board of Directors, SDSTA
Date



**SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY
SANFORD UNDERGROUND RESEARCH FACILITY**

4850L UNDERGROUND LAB EXPANSION: BUILD

CONTRACT 2023-34

THYSSEN MINING, INC.

GENERAL CONDITIONS

INDEX

Article 1	Definitions
Article 2	Execution, Correlation, and Intent
Article 3	Ownership, Use of Documents, Confidentiality of Documents
Article 4	Owner's Rights and Responsibilities
Article 5	Contractor's Responsibilities
Article 6	Subcontractors
Article 7	Work by Owner or by Separate Contractors
Article 8	Miscellaneous Provisions
Article 9	Time
Article 10	Payments and Completion
Article 11	Contractor's Responsibility for Project Safety
Article 12	Insurance
Article 13	Changes in the Work
Article 14	Uncovering and Correction of Work
Article 15	Underground Work
Article 16	Termination of the Contract

ATTACHMENTS:

Exhibit A:	Insurance Requirements
Exhibit B:	Environment, Safety, and Health Requirements
Exhibit C:	Scope of Work
Exhibit D:	Contractor's Proposal
Exhibit E:	Certificate of Exemption
Exhibit F:	Acknowledgement of Risk
Exhibit G:	Release, Agreement Not to Sue Waiver

ARTICLE 1 DEFINITIONS

- 1.1 Owner:** South Dakota Science and Technology Authority
- 1.2 Contractor:** The person or entity identified as such in the Agreement for Construction, including authorized representatives.
- 1.3 Subcontractor:** Any individual, firm or corporation to whom the Contractor sublets any part of the contract for supplying materials and labor, or only labor, at the site of the project.
- 1.4 Contract Documents:** The Agreement for Construction, the Request for Proposal with Instructions to Bidders and attached Exhibits, the Plans, Drawings, and Specifications, Contractor's Proposal Dated April 25, 2023, Contractor ESH Questionnaire, Construction ESH Manual and these General Conditions.
- 1.5 Contract (or Agreement):** The Contract Documents form the Contract.
- 1.6 Work:** The completed construction required by the Contract Documents, and every part thereof, including all labor necessary to produce such construction, and all materials and equipment incorporated or to be incorporated into such construction.
- 1.7 Project:** The total construction of which the work performed under the Contract Documents may be the whole or a part.
- 1.8 Drawings or Plans:** The graphic and pictorial portions of the Contract Documents showing the design, dimensions and layout of the work including, but not limited to, plan views, elevation views, details, sections, schedules, and diagrams.
- 1.9 Specifications:** The written requirements for materials, equipment, construction systems, standards and workmanship.

ARTICLE 2 EXECUTION, CORRELATION AND INTENT

2.1 By executing the Agreement for Construction, the Contractor represents that Contractor has examined the Contract Documents. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. Work not covered in the Contract Documents will not be required unless it is consistent therewith and is reasonably inferable therefrom as being necessary to produce the intended results. Words and abbreviations which have well-known technical, or trade meanings are used in the Contract Documents in accordance with such recognized meanings. All Work mentioned or indicated in the Contract Documents shall be performed by the Contractor as part of this Contract unless it is specifically indicated in the Contract Documents that such Work is to be done by others. Should the Drawings or the Specifications disagree in themselves or with each other, the Contractor shall provide the better quality or greater quantity of work and/or materials unless otherwise directed by written change.

- 2.2** The organization of the Specifications into divisions, sections and articles, and the arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of work to be performed by any trade.
- 2.3** Owner assumes no liability arising out of jurisdictional issues raised or claims advanced by trade organizations or other interested parties based on the arrangement or manner of subdivision of the content of the Specifications and Drawings.
- 2.4** All indications or notations which apply to one of a number of similar situations, materials or processes shall be deemed to apply to all such situations, materials or processes wherever they appear in the Work, except where a contrary result is clearly indicated by the Contract Documents.
- 2.5** Where codes, standards, requirements and publications or public and private trade associations or other bodies are referred to in the Specifications, references shall be understood to be in the latest revision prior to the date of receiving bids, except where otherwise indicated.
- 2.6** Where no explicit quality or standards for materials or workmanship are established for Work, such Work is to be of good quality for the intended use and consistent with the quality of the surrounding Work, of the construction of the Project generally, and industry standards.
- 2.7** All manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with the manufacturer's written or printed directions and instructions unless otherwise indicated in the Contract Documents. A copy of the manufacturer's written or printed directions shall be provided to the Owner upon completion of the project.
- 2.8** Nothing contained in the Contract Documents shall create any contractual relationship between the Owner and any Subcontractor, Sub-subcontractor or supplier.
- 2.9** The Contract may be amended or modified only in writing in the manner set forth in Article 13.

ARTICLE 3

OWNERSHIP, USE OF DOCUMENTS, CONFIDENTIALITY OF DOCUMENTS

3.1 Ownership of Work Product

Any plans, specifications, engineering calculations, technical data, reports, miscellaneous drawings, and all information contained therein provided by Owner, its consultants, employees, contractors and agents to the Contractor for the Contractor's performance of its obligations under this agreement are the property of the Owner. They are to be used only with respect to this Project and are not to be used for any other project. The Contractor may not disseminate these materials to any person or entity nor may the Contractor use these materials for purposes other than work for the Owner, without the express written approval of the Owner. The Owner shall not unreasonably withhold such approval for dissemination of these materials as necessary to subcontractors and suppliers.

3.2 Confidentiality of Documents

All reports, plans, specifications, engineering calculations, technical data, miscellaneous drawings, and information contained therein, provided to, or prepared by the Contractor, its

owners, officers, employees, agents, consultants, suppliers, and subcontractors in connection with the Contractor's performance under this agreement are confidential and the Contractor, its owners, officers, employees, agents, consultants, suppliers, and subcontractors shall not disclose this information to any person, individual, or entity without the express written permission of the Owner or as otherwise required by law.

3.3 Return of Documents

All documents covered by this Article 3 shall be delivered to the Owner at the completion of the Work. The Contractor may not retain any such documents for its own use without the express written permission of the Owner and any documents that are retained, with or without permission, shall be subject to all of the requirements of this Article 3.

3.4 Terms to be Included In Subcontracts

The Contractor shall include the requirements of this Article 3 in any contract it enters into with any consultants, subcontractors, suppliers, persons, individuals, or entities for the performance of any of the Contractor's obligations under this agreement.

ARTICLE 4 OWNER'S RIGHTS AND RESPONSIBILITIES

4.1 Information and Services Required of the Owner

4.1.1 The Owner shall secure and pay for necessary easements and other property rights required for the construction of the Project.

4.1.2 Information under the Owner's control shall be furnished by the Owner with reasonable promptness after receipt from the Contractor of a written request for such information.

4.1.3 Unless otherwise provided in the Contract Documents, the Contractor will be furnished with electronic copies of the Drawings and Specifications necessary for the execution of the Work. If no electronic copies are available Contractor will be furnished with a reasonable number of prints of Drawings and Specifications, at no cost to Contractor.

4.1.4 The foregoing are in addition to other duties and responsibilities of the Owner enumerated herein.

4.2 Owner's Right to Stop the Work: If the Contractor fails to correct defective Work as required by Article 14 within no less than three working days after receipt of written notice from the Owner or in such time as may be established in written notice from Owner to commence and continue correction of such default or neglect with diligence and promptness, or fails to carry out the Work in accordance with the Contract Documents in any material respect, the Owner, in addition to its other remedies, by a written order signed by the Owner, may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the Owner to stop the Work shall not give rise to any duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity.

4.3 Owner's Right to Carry Out the Work: If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents in any material respect and fails within three working days after receipt of written notice from the Owner or in such time as may be established in written notice from Owner to commence and continue correction of

such default or neglect with diligence and promptness, or if the Work is not being performed properly or in accordance with the scheduling provisions of the Contract Documents in any material respect, the Owner may, after the expiration of such notice period and without prejudice to any other remedy it may have, make good such deficiencies. In such case an appropriate Change Order shall be issued deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies, including compensation for Owner's additional services made necessary by such default, neglect or failure. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner upon demand. If, in the sole judgment of the Owner, an emergency exists as a result of the Contractor's default, neglect or failure to correct defective work, which in the Owner's opinion, requires more immediate corrective action than the Contractor is able to provide, then the Owner may, after providing notice to the Contractor, perform such corrective work or cause it to be performed by others. The Owner shall also have the right to carry out the Work, or any part thereof, during the period of any work stoppage without terminating the Contract. If the Owner wishes to exercise this right it will give the Contractor three days' notice of its intent to do so. In any such case, an appropriate deductive Change Order shall be issued in accordance with Article 13, the amount of which shall not exceed an amount which equals the estimated direct cost, of performing the work which the Owner elects to perform and the proportionate amount of the Contractor's fee associated therewith.

4.4 Owner's Right to Access for Observation or Other Work: The Owner reserves the right of access to any part of the Work, at any time, for the purpose of observation, or testing, or to install other work, either with its own forces or with separate contractors. Such access is not to be construed to mean partial occupancy by Owner, and no claim for additional compensation by the Contractor because of such access or installation of work will be considered. Contractor shall cooperate with Owner during Owner's access or performance of work.

4.5 Owner's Representative: The Owner's Representative shall be the initial point of contact between the Contractor and Owner for all matters relating to the administration of the Contract and the Work and shall be given all notices required by the Contract. Important communications, including requests for Change Orders, notices of termination, and similar notices, shall be confirmed in writing with the Owner's Representative and also given to the persons listed in Article VII of the Agreement for Construction. Other communications shall be confirmed in writing upon written request. Owner's Representative on this project is:

Brent Knottnerus, Project Engineer
South Dakota Science and Technology Authority
630 East Summit Street
Lead, SD 57754
Office: 605.722.8650
Email: bknottnerus@sanfordlab.org

ARTICLE 5 CONTRACTOR'S RESPONSIBILITIES

5.1 Review of Contract Documents: The Contractor shall carefully study and compare the Contract Documents and shall at once report to the Owner any error, inconsistency or omission Contractor may discover. The Contractor shall not be liable to the Owner for any damage resulting from any such errors, inconsistency or omission Contractor may discover and report, nor for any damage resulting from any such errors, inconsistencies or omissions which Contractor could not reasonably have discovered. The Contractor shall perform no portion of the Work at any time without Contract Documents.

5.2 Supervision and Construction Procedures

5.2.1 The Contractor shall supervise and direct the Work, using the skill and attention necessary to complete the Work in a workmanlike manner. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the contract. The Owner shall have no control over, or responsibility for, any such matters.

5.2.2 Nothing contained in the Contract Documents shall be interpreted by implication or otherwise as a direction by the Owner to the Contractor as to construction means, methods, techniques, sequences and procedures. If there is express reference to such means, methods, techniques, sequences and procedures, it is solely for the purpose of insuring that the Work will be produced in accordance with the desired objectives as set forth in the Contract Documents but such express reference shall in no way relieve the Contractor of its responsibilities in connection therewith. If the Contractor does not wish to accept the responsibility for any means, techniques, sequences or procedures which are expressly set forth in the Contract Documents, then the Contractor shall notify the Owner in writing of the actual means, methods, techniques, sequences and procedures which Contractor will employ on the Work if these differ from those expressly referred to in the Contract Documents. All loss, damage or liability or cost of correcting defective Work arising from the employment of any construction means, methods, techniques, sequences or procedures shall be borne by the Contractor notwithstanding that any of the same shall have been referred to expressly in the Contract Documents.

5.2.3 The Contractor shall be responsible to the Owner for the acts and omissions of Contractor's employees, Subcontractors, Sub-subcontractors, materialmen and suppliers and their agents and employees, and other persons performing any of the Work.

5.2.4 The Contractor shall not be relieved from Contractor's obligations to perform the Work in accordance with the Contract Documents by the use or occupancy of part of the Work by the Owner as provided in Article 4.4, by the performance of Work related to the Project by others as provided in Article 7.1, or by inspections, tests or approvals required or performed under Article 8.7 by persons other than the Contractor.

5.2.5 The Contractor shall coordinate and supervise the Work performed by Subcontractors to the end that the Work is carried out without conflict between trades or jurisdictional disputes and so that no Subcontractor, at any time, causes delay to the general progress of the Work. The Contractor and all Subcontractors shall at all times afford each other Subcontractor, any separate contractor, and the Owner, every reasonable opportunity for the installation of the Work and the storage of materials, and shall provide access to and the use of necessary loading dock and hoist facilities, adequate storage room and necessary utilities and other services.

5.2.6 Wherever the work of a Subcontractor is dependent upon the work of other Subcontractors, or the Contractor, the Contractor shall require the Subcontractor to:

5.2.6.1 Coordinate Subcontractor's work with the dependent work;

5.2.6.2 Provide necessary dependent data and requirements;

5.2.6.3 Supply and/or install items to be built into dependent work of others;

5.2.6.4 Make provisions for dependent work of others;

5.2.6.5 Examine dependent drawings and specifications;

5.2.6.6 Examine previously placed dependent work;

5.2.6.7 Check and verify dependent dimensions of previously placed work;

5.2.6.8 Notify Contractor of previously placed dependent work or dependent dimensions which are unsatisfactory or will prevent satisfactory installation of Subcontractor's work; and

5.2.6.9 Not proceed with work until the unsatisfactory dependent conditions have been corrected.

Installation of Work by a Subcontractor in any given area shall constitute acceptance by the Subcontractor and Contractor of the previously placed dependent work.

5.3 Labor and Materials

5.3.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work. The word "provide" shall mean furnish and install complete, including connections, unless otherwise specified. All connection charges, assessments or inspection fees which may be imposed by any public agency or utility company are included in the Contract Sum and shall be the Contractor's responsibility.

5.3.2 The Contractor shall at all times enforce strict discipline and good order among Contractor's employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to him/her. The Contractor shall be responsible to maintain and observe, and to require the Subcontractors to maintain and observe, sound labor practices, and shall require each Subcontractor to take all steps reasonably necessary to avoid labor disputes or stoppages.

5.3.3 Except in the event of emergency, no substantial field operations shall be performed outside of regular working hours without the prior approval of the Owner. The Contractor will not be entitled to additional compensation for work performed outside of regular working hours except as otherwise expressly agreed in writing by the Owner prior to the performance of such overtime work. Additional compensation for such authorized overtime shall be limited to the direct cost of the premium portion only of such authorized overtime. No additional indirect cost or fee shall be included.

5.3.4 Substitutions

5.3.4.1 The products, materials and equipment of manufacturers referred to in the Specifications and the Drawings are intended to establish the standard of quality and design required by the Owner; however, products, materials and equipment manufacturers, other than those specified, may be used, if equivalent and approved in writing by the Owner.

5.3.4.2 It is deemed that the term 'or approved equal' is included after all products, materials and equipment referred to in the Specifications or the Drawings.

5.3.4.3 The Owner will be the sole judge of equivalency of proposed substitute products, materials, and equipment.

5.3.4.4 If the Contractor desires to use a substitute item, Contractor shall make application to the Owner in writing in sufficient time (having regard to the progress of the Work, the period of delivery of the goods concerned, and adequate time for the Owner's review) stating and fully identifying the proposed substitute, cost changes (if any), and submitting substantiating data, samples, brochures, etc. of item proposed. It is the Contractor's responsibility to provide sufficient evidence by tests or other means to support any request for approval of substitution.

5.3.4.5 Prior to proposing any substitute item, the Contractor shall satisfy itself that the item Contractor proposes is, in fact, equal to that specified, that it will fit into the space allocated, that it affords comparable ease of operation, maintenance and service, that its appearance, longevity and suitability for the climate and use are comparable to that specified, and that the substitution is in the Owner's best interest.

5.3.4.6 The burden of proof that a proposed substitution is equal to a specified item shall be upon the Contractor, who shall support the request with sufficient test data and other means to permit the Owner to make a fair and equitable decision on the merits of the proposal. Any item by a manufacturer other than those cited in the Contract Documents, or of brand name or model number or of generic species other than those cited in the Contract Documents, will be considered a substitution.

5.3.4.7 Materials and methods proposed as substitutions for specified items shall be supported by certification of their acceptance for use by an authority, person or persons having jurisdiction over the use of the specified material or method.

5.3.4.8 Acceptance of substitutions shall not relieve the Contractor from responsibility for compliance with all the requirements of the Contract Documents. The Contractor shall be responsible at its own expense for any changes in other parts of the Work of this Contract or the work of other contractors caused by its substitutions, including cost of all design and redesign services related thereto.

5.3.4.9 The Contract Term shall not be extended by any circumstances resulting from a proposed substitution, nor shall the Contractor be entitled to any compensation for any delay caused thereby or related thereto.

5.3.4.10 All costs for the evaluation of proposed substitutions, whether approved or not, shall be borne by the Contractor.

5.3.5 All materials and equipment shall be delivered, handled, stored, installed and protected to prevent damage in accordance with best current practice in the industry, in accordance with manufacturers' specifications and recommendations, and in accordance

with Contract Document requirements. The Contractor will store packaged materials and equipment in their original and sealed containers, marked with the brand and manufacturer's name, until ready for use, and deliver materials and equipment in ample time to facilitate inspections and tests prior to installation. The term 'delivery' in reference to any item specified or indicated, means the unloading and storing with proper protection at the project site. Damaged materials or equipment will be rejected and removed from the site by the Contractor.

5.3.6 Before ordering materials, equipment, or performing Work, the Contractor shall verify indicated dimensions. If a discrepancy exists, the Contractor shall notify the Owner of same immediately. The Owner will then clarify the intended design. The Contractor shall take field measurements required for the proper fabrication and installation of the Work. Upon commencement of any item of Work, the Contractor shall be responsible for dimensions related to such item of Work.

5.4 Guarantees/Warranty

5.4.1 The Contractor guarantees and warrants to the Owner that all materials and equipment furnished under this Contract will be new unless otherwise specified, and that all Work will be of good quality, free of any defect in equipment, material, or workmanship performed by the Contractor or any Subcontractor or supplier at any tier and in conformance with the Contract Documents. All Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. If required by the Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

5.4.2 This warranty shall continue for a period of 1 year from the date of final acceptance of the Work. If Owner takes possession of any part of the Work before final acceptance, this warranty shall continue for a period of 1 year from the date Owner takes possession.

5.4.3 The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Owner-owned or controlled real or personal property, when that damage is the result of:

5.4.3.1 The Contractor's failure to conform to contract requirements; or

5.4.3.2 Any defect of equipment, material, workmanship, or design furnished by the Contractor.

5.4.4 The Contractor shall restore any Work damaged in fulfilling the terms and conditions of Warranty. In the event of repairs or replacement under the terms of this Warranty, the Contractor's warranty with respect to Work repaired or replaced will be extended and will continue for 1 year from the date of repair or replacement.

5.4.5 Owner shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

5.4.6 If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, Owner shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

5.4.7 With respect to all warranties, express or implied, from Subcontractors, manufacturers, or suppliers for work performed and materials furnished under the Agreement for Construction, the Contractor shall:

5.4.7.1 Obtain all warranties that would be given in normal commercial practice;

5.4.7.2 Require all warranties to be executed, in writing, for the benefit of Owner; and

5.4.7.3 Enforce all warranties for the benefit of Owner. In the event the Contractor's warranty under subsection 5.4.2 has expired, Owner may bring suit at its expense to enforce a Subcontractor's, manufacturer's, or supplier's warranty.

5.4.8 Unless a defect is caused by the intentional act or omission or negligence of the Contractor or Subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by Owner nor for the repair of any damage that results from any defect in Owner-furnished material or design.

5.4.9 The Contractor will indemnify the Owner against loss, including loss of use and from a breach of the Contractor's guaranty and warranty under this Article 5.4, whether the loss arises before or after the Owner's acceptance of the Work.

5.4.10 Where the Contract Documents provide for equipment and material warranties in addition to the Contractor's guarantees and warranty contained in Article 5.4.1, such warranties shall at a minimum:

5.4.10.1 Provide that the term of the warranty shall start on the date of Final Acceptance of the project or the date the Owner takes beneficial occupancy of any portion of the project that requires the use or start-up of the warranted equipment or material, whichever date occurs first.

5.4.10.2 Provide for complete repair or replacement of defective equipment or material.

5.4.10.3 Provide all materials, shipping, and labor necessary to repair or replace defective equipment or material at no expense to the Owner.

5.4.10.4 Provide that any replacement parts used in repairing or replacing defective equipment or material shall be new or in a like-new condition.

5.4.10.5 Provide for the complete repair or replacement of defective equipment or material within two weeks after receiving written notice of the defect; provided however, that the Owner may, at its sole discretion, grant an extension of time for good cause shown.

5.4.10.6 Provide for no limitation of liability should the Contractor and/or manufacturer fail to repair or replace defective equipment or material within the time specified in Article 5.4.10.5 or should the remedy of repair or replacement otherwise fail.

5.4.10.7 Be construed under South Dakota law.

5.4.10.8 Provide that any legal action brought on the warranty shall be brought only in a South Dakota state court.

5.4.11 Nothing in this Article 5.4 or elsewhere in the Contract Documents shall relieve the Contractor or any Subcontractor of liability for any defect resulting from the failure of that Contractor or Subcontractor to perform the Work in a workmanlike manner which manifests itself or is otherwise discovered after the warranty and guarantee period provided for herein.

5.5 Taxes: The Contractor shall pay all sales, consumer, use, excise, and other similar taxes for the Work or portions thereof which are to be provided by the Contractor which are legally enacted at the time bids are received, whether or not yet effective. The determination of the applicability of any particular tax and the amounts due is the responsibility of the Contractor. The Contractor is directed to the South Dakota Department of Revenue for inquiries concerning taxes which may be due at: <https://dor.sd.gov/businesses/taxes/>.

5.6 Permits, Fees and Notices

5.6.1 The Contractor shall secure and pay for all permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the Work which are customarily secured after execution of the Contract and which are legally required at the time the bids are received.

5.6.2 The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the Work and shall indemnify the Owner against all costs, fines and damages, and all actions, claims and proceedings, due to its failure to do so.

5.6.3 The Contractor and its Subcontractors shall acquaint themselves with all codes governing their work and shall complete the Work in conformance with all codes governing their work.

5.6.4 It is not the responsibility of the Contractor to make certain that the Contract Documents are in accordance with applicable laws, statutes, building codes and regulations. If the Contractor observes that any of the Contract Documents are at variance therewith in any respect, Contractor shall promptly notify the Owner in writing, and any necessary changes shall be accomplished by appropriate modification.

5.6.5 If the Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Owner, Contractor shall assume full responsibility therefor and shall bear all costs attributable thereto.

5.7 Contractor's Representative: The Contractor shall employ a competent Representative and necessary assistants all of whom are acceptable to the Owner and who shall be in attendance at the Project site during the progress of the Work. The Contractor's Representative shall represent the Contractor and all communications given to the Contractor's Representative shall be as binding as if given to the Contractor. Important communications shall be confirmed in writing. Other communications shall be so confirmed on written request in each case. The Contractor's Representative shall not be changed without the Owner's consent. The Contractor's Representative on this Project is [REDACTED].

5.8 Shop Drawings, Product Data, and Samples

5.8.1 Shop Drawings are drawings, diagrams, schedules or other data specially prepared for the Work by the Contractor or any Subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

5.8.2 Product Data are illustrations, standard schedules, performance charts, instructions brochures, diagrams and other information furnished by the Contractor to illustrate a material, product or system for some portion of the Work.

5.8.3 Samples are physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

5.8.4 The Contractor shall submit a schedule for submittal of Shop Drawings, Product Data and Samples to the Owner for review. The Contractor shall review, approve and submit to the Owner, with reasonable promptness and in such sequence as to cause no delay in the Work or in the work of any separate contractor, all Shop Drawings, Product Data and Samples required by the Contract Documents.

5.8.4.1 The Owner reserves the right to review Shop Drawings, Product Data, Samples and submittals in a sequence consistent with the sequence of erection, installation and assembly of the various elements of the Work.

5.8.4.2 No extension of time will be granted, nor will any consideration be given to claims arising out of the Contractor's failure to submit any Shop Drawing, Product Data, Samples or related submittals according to the schedule or otherwise in a manner which does not allow adequate lead time for Owner's review, or does not allow ample time for revision, resubmission and subsequent review by the Owner as required.

5.8.4.3 Composite Drawing: In the interest of coordinating and expediting the work in critical areas, i.e. exterior wall components, mechanical/electrical systems, and other areas so requested by the Owner, the Contractor shall prepare and submit, to the Owner for review, Composite Drawings embodying the Work of the various trades and/or Subcontractors involved. After review, the Contractor shall distribute prints or reviewed Composite Drawings to affected trades and/or Subcontractors. The Contractor shall require that the involved trades and/or Subcontractors cooperate in preparation of the Composite Drawings to assure proper coordination between trades and/or Subcontractors. The participating trades and/or Subcontractors shall indicate their approval on these drawings.

5.8.5 By approving and submitting Shop Drawings, Product Data and Samples, the Contractor represents that Contractor has determined and verified all materials, field measurement, and field construction criteria related thereto, checked the Shop Drawings, Product Data, and Samples for complete dimensional accuracy; that Contractor has checked to insure that work contiguous with and having bearing on the Work shown on the Shop Drawings is accurately and clearly shown, that Contractor has checked the Shop Drawings against the Composite Drawings prepared by the Contractor, that the Work has been coordinated and that the equipment will fit into the assigned spaces, and that Contractor has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

5.8.5.1 Any Shop Drawing, Product Data or Sample submitted without Contractor's approval will not be processed for review by the Owner, but will be returned to the Contractor for compliance with the above procedures, in which event it will be deemed that the Contractor has not complied with the provisions herein specified and the Contractor shall bear the risk of all delays as if no Shop Drawing, Product Data and Sample had been submitted.

5.8.5.2 Shop Drawings shall bear a coordination and approval stamp signed by the Contractor and each contiguous Subcontractor, which shall confirm the representations set forth in Article 5.8.5. Shop Drawings shall bear the seal of a registered professional engineer when required by the Specifications or state law.

5.8.6 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data or Samples, to revisions other than those requested by the Owner on previous submittals. Unless such written notice has been given, the Owner's action on a resubmitted Shop Drawing, Product Data, or Sample shall not constitute review and action of any changes not requested on the prior submittal.

5.8.7 No portion of the Work requiring submission of a Shop Drawing, Product Data or Sample shall be commenced until the submittal has been approved by the Owner. All such portions of the Work shall be in accordance with approved submittals.

5.9 Use of Site

5.9.1 The Contractor shall confine operations at the Site to areas permitted by law, ordinances, permits and the Contract Documents, and shall not unreasonably encumber the Site with any unnecessary or surplus materials or equipment or debris.

5.9.2 Notwithstanding the designation of construction limits or the indication of temporary fences or barricades, the provisions of the Contract Documents governing certain portions or phases of the Work may require that certain operations be carried out beyond such designated limits. Trenching, utility work, site development, landscaping and all other Work, if required beyond such designated limits, shall be scheduled in such a manner as to cause or occasion a minimum of inconvenience or disturbance or interference with the normal operation of the Owner, abutters, and the public. The Contractor shall obtain the Owner's prior approval for such operations, prosecute such operations expeditiously, and restore the affected area and other areas needed for access to their original condition immediately upon completion of such operations, unless otherwise specified herein.

5.9.3 All operations shall be carried out so as to avoid endangering any adjacent facility or property, or interrupting, restricting or otherwise infringing or interfering with the use thereof.

5.9.4 The Contractor shall confine operations at the site to work related activities.

5.10 Cutting and Patching of Work

5.10.1 The Contractor shall be responsible for all cutting, fitting or patching that may be required to complete the Work or to make its several parts fit together properly.

5.10.2 The Contractor shall not damage or endanger any portion of the Work or the work of the Owner or any separate contractors or adjacent facilities by cutting, patching or otherwise altering any work, or by excavation. The Contractor shall not cut or otherwise alter the work of the Owner or any separate contractor except with the written consent of the Owner and of such separate contractor. The Contractor shall not unreasonably withhold from the Owner or any separate contractor its consent to cutting or otherwise altering the Work.

5.10.3 Structural elements of the Work shall not be cut, patched or otherwise altered or repaired without prior written authorization by the Owner.

5.10.4 Authorization to proceed with remedial operations for any damaged or defective element or portion of the Work shall not constitute a limitation or a waiver of the Contractor's right to require the removal and replacement of any Work which fails to fulfill the requirements of the Contract Documents.

5.11 Cleaning Up

5.11.1 The Contractor at all times shall keep the Site and related area free from accumulation of waste materials or rubbish caused by Contractor's operations. At the completion of the Work, Contractor shall remove all waste materials and rubbish from and about the Project site as well as tools, construction equipment, machinery and surplus materials. All waste and rubbish shall be removed from the Site at least weekly and more often if necessary.

5.11.2 If the Contractor fails to maintain a clean and safe Project and/or fails to clean up at the completion of the Work, the Owner may do as provided in Article 4.3 and the cost thereof shall be charged to the Contractor.

5.12 Communications: The Contractor shall forward all communications to the Owner through Owner's Representatives set forth in Article 4.5.

5.13 Royalties and Patents: The Contractor shall pay all royalties and license fees, and shall defend all suits or claims for infringement of any patent rights and shall save the Owner harmless from loss on account thereof, except that the Owner shall be responsible for all such loss when a design, process or product of a particular manufacturer or manufacturers are specified or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner or designer, but if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, Contractor shall be responsible for such loss unless he promptly gives such information to the Owner in writing.

5.14 Indemnification:

5.14.1 To the fullest extent permitted by law, the Contractor (the "Indemnifying Party") agrees to hold harmless and indemnify the Homestake Indemnified Parties, the SDSTA, the State of South Dakota, and the elected officials, directors, officers, employees, agents and representatives of SDSTA and the State of South Dakota (Individually, an "Indemnified Party" and collectively, the "Indemnified Parties") from and against any and all actions, suits, damages, liability or other proceedings which may arise as a result of the negligence, intentional acts, misconduct, error or omission of the Indemnifying Party and of any officer, agent, subcontractor of any tier, consultant of any tier or employee of the indemnifying

Party. This section does not require the Indemnifying Party to indemnify an Indemnified Party from claims or liability to the extent the claim or liability arises out of the acts or omissions of the Indemnified Party.

5.14.2 In the event of a claim against an Indemnified Party by an employee of the Indemnifying Party or any sub-tier contractor or consultant, anyone directly or indirectly employed by the Indemnifying Party, any sub-tier contractor or consultant of the Indemnifying Party, or anyone for whose acts the Indemnifying Party may be liable, the obligation to indemnify set forth in this indemnification clause shall not be subject to any limitation on amount or type of damages, compensation, or benefits payable by or for the Indemnifying Party or any sub-tier contractor or consultant under workers compensation acts, disability benefits acts, or other employee benefit acts.

5.14.3 As used in this indemnification clause, the term “Homestake Indemnified Parties” means Barrick Gold Corporation (“Barrick”); Homestake Mining Company of California (“Homestake”); the affiliates of Barrick or Homestake, the directors, officers, and employees of Barrick or Homestake, and the invitees, licensees, contractors, agents, and any other person that Barrick or Homestake invites upon or authorizes to enter SURF.

5.14.4 Nothing in this article 5.14 shall be construed to negate, abridge, or otherwise reduce any other right or obligation or indemnity which would otherwise exist as to any party or person described in this Article 5.14.

5.14.5 Anything in the foregoing to the contrary notwithstanding, the Contractor’s obligation to indemnify as set forth above shall include any claims, damages, liabilities, losses and expenses, including but not limited to attorneys’ fees and expert witness fees arising out of related to the use by Contractor of any of Owner’s equipment.

5.15 Default

5.15.1 The Contractor shall be in default of the Contract if:

5.15.1.1 Contractor refuses or fails to prosecute the Work in accordance with the Contract Documents in any material respect;

5.15.1.2 Contractor fails to make proper payment to Subcontractors for materials or labor (provided Owner shall have paid to Contractor any payments due from Owner in connection with such materials or labor);

5.15.1.3 Contractor disregards laws, ordinances, rules, codes and regulations or orders of any public authority having jurisdiction (the “Regulations”); provided, however that Contractor shall not be deemed to be in default if Contractor in good faith relies upon the interpretation of the Regulations expressed or clearly implied in the Drawings, Plans or Specifications; provided further, however, that Contractor remains solely responsible for compliance with the Regulations as they may apply to any design work provided by Contractor; and further provided that Contractor shall in all circumstances comply with the terms of Exhibit B hereto;

5.15.1.4 Contractor fails to coordinate its work with other contractors and Subcontractors as required under Article 7 of these General Conditions;

5.15.1.5 Contractor fails to comply with the scheduling requirements of the Contract;

5.15.1.6 Contractor fails to promptly replace material or workmanship not in accordance with the Contract Documents; or

5.15.1.7 Contractor fails in any material respect to observe any other terms, provisions, conditions, covenants and agreements in the Contract to be observed and performed on the part of the Contractor.

5.16 Use of Owner's Equipment.

5.16.1 If the Contractor uses Owner's equipment in connection with the Work, Contractor shall be responsible to use the equipment in a good and businesslike manner and consistent with the Owner's environmental, health and safety requirements and applicable law. If the equipment is damaged or destroyed while being used by Contractor or while in Contractor's care, custody or control, Contractor shall repair or replace the equipment at Contractor's expense. Nothing in the foregoing shall require the Contractor to be responsible for ordinary wear and tear.

5.16.2 If the Contractor's use or care, custody or control of Owner's equipment results in damage or injury to Owner's property or employees, Contractor shall be liable for any such damage or injury, and Contractor shall promptly repair or replace the equipment so as not to interfere with Owner's operations.

5.16.3 Prior to using or taking custody of any of Owner's equipment, Contractor shall provide proof reasonably acceptable to Owner that the Contractor's liability insurance will afford coverage for any claims arising out of Contractor's use or care, custody or control of Owner's equipment, and that Contractor carries property insurance that will cover Contractor's obligation to repair or replace Owner's equipment as provided herein.

5.16.4 Nothing in this section 5.16 shall be construed to authorize Contractor to use Owner's equipment without Owner's prior written consent and upon such terms and conditions as Owner may require.

ARTICLE 6 SUBCONTRACTORS

6.1 Definitions

6.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform any of the Work at the site. The term Subcontractor is referred to throughout the Contract Documents and means a Subcontractor or its authorized representative. The term Subcontractor does not include any separate contractor or its subcontractors.

6.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform any of the Work at the site. The term Sub-subcontractor is referred to throughout the Contract Documents and means a Sub-subcontractor or an authorized representative thereof.

6.2 Award of Subcontracts and Other Contracts for Portions of the Work. The Contractor shall conduct an investigation of each of its proposed Subcontractor's capabilities to assure each is responsible and has the requisite experience, skill, physical plant, and financial strength necessary to perform each Subcontractor's respective Work. The Contractor shall not contract with any Subcontractor that is not responsible or does not have the requisite experience, skill, physical plant, and financial strength necessary to perform its part of the Work.

6.3 Subcontractual Relations

6.3.1 The Contractor shall not include any provisions in its contracts with its Subcontractors which will in any way prejudice the rights of the Owner under the Contract between the Owner and the Contractor.

6.3.2 The Subcontract agreement shall require the Subcontractor to consent to any assignment of the Subcontract to the Owner in the event of a default by the Contractor hereunder.

6.3.3 Nothing in Article 6 shall be construed to create a privity of contract between the Owner and any Subcontractor.

6.4 Notification of Subcontractors to Owner. Contractor shall provide to Owner a listing of every Subcontractor that Contractor intends to employ on the Project and include: Company name, representative name, phone number, and email address.

ARTICLE 7 WORK BY OWNER OR BY SEPARATE CONTRACTORS

7.1 Owner's Right to Perform Work and to Award Separate Contracts

7.1.1 The Owner reserves the right to perform work related to the Project with its own forces, and to award separate contracts in connection with such work. Such work may include Work assigned to the Contractor under the Contract Documents, which Work is not being performed properly or in accordance with the scheduling provisions of the Contract Documents, whether or not the Contractor is in default under Article 5.15.1 and whether or not the Owner has terminated the Contract under Article 15.2. If the Owner elects to exercise this right it will do so upon reasonable notice to the Contractor. There shall be an appropriate adjustment in amounts payable to the Contractor to reflect the Work undertaken by the Owner, which the parties shall confirm by Change Order in accordance with Article 13. If the Contractor claims that the delay involved is because of action or inaction by the Owner, Contractor shall make such claim as provided elsewhere in the Contract Documents.

7.1.2 The Owner will provide for the coordination of the work of its own forces and of each separate contractor with the Work of the Contractor, who shall cooperate therewith as provided in Article 7.2.

7.2 Mutual Responsibility

7.2.1 The Contractor shall afford the Owner and separate contractors' reasonable opportunity and all required facilities for the introduction and storage of their materials and equipment and the execution of their work and shall connect and coordinate its Work with theirs as required by the Contract Documents.

7.2.2 If any part of the Contractor's Work depends for proper execution or results upon the work of the Owner or any separate contractor, the Contractor shall, prior to proceeding with the Work, promptly report to the Contractor any apparent discrepancies or defects in such other work that render it unsuitable for such proper execution and results. Failure of the Contractor to report shall constitute an acceptance of the Owner's or separate contractor's work as fit and proper to receive the Work, except as to defects which may subsequently become apparent in such work by others.

7.2.3 Any costs caused by defective or ill-timed work shall be borne by the party responsible therefor.

7.2.4 Should the Contractor wrongfully cause damage to the work or property of the Owner or of a separate contractor, or to other work on the site, the Contractor shall promptly remedy such damage.

7.2.5 Should the Contractor wrongfully cause damage to the work or property of any separate contractor, the Contractor shall upon due notice promptly attempt to settle with such other contractor by agreement, or otherwise to resolve the dispute. If such separate contractor sues or initiates an arbitration proceeding against the Owner on account of any damage alleged to have been caused by the Contractor, the Owner shall notify the Contractor who shall participate in the defense of such proceedings at the Contractor's expense, and if any judgment or award against the Owner arises therefrom, the Contractor shall pay or satisfy it and shall reimburse the Owner for all attorneys' fees and court or arbitration costs which the Owner has incurred.

7.3 Owner's Right to Clean Up: If a dispute arises between the Contractor and separate contractors as to their responsibility for cleaning up the Project Site and related areas on a routine basis as required by Article 5.11, the Owner may, after first giving Contractor written notice and one working day to comply, clean up and charge the cost thereof to the contractor responsible therefor as the Owner shall determine to be just.

ARTICLE 8 MISCELLANEOUS PROVISIONS

8.1 Governing Law: The Contract shall be governed by South Dakota law, without respect to the conflict of laws provisions thereof.

8.2 Successors and Assigns: The Owner and the Contractor each binds itself, its successors, assigns and legal representatives to the other party hereto and to the successors, assigns and legal representatives of such other party in respect to all covenants, agreements and obligations contained in the Contract Documents. The Contractor shall not assign the Contract or sublet it as a whole without the written consent of the Owner, nor shall the Contractor assign any money due or to become due to it hereunder, without the previous written consent of the Owner.

8.3 Written Notice: All notices, demands and other communications hereunder shall be in writing and shall be deemed to have been given if sent pursuant to Article VII of the Agreement for Construction.

8.4 Claims for Damages: Should either party to the Contract suffer injury or damage because of any act or omission of the other party or of any of its employees, agents or others for whose acts it is legally liable, notice of such injury or damage shall be made in writing to such other party within 30 days after the first discovery of such injury or damage. Page 106 of 236

8.5 Payment and Performance Bond: Before commencing the Work, the Contractor shall provide Payment and Performance Bond in the forms attached hereto as Exhibit J.

8.6 Rights and Remedies

8.6.1 The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. This provision relates particularly to the Contractor's obligations under Article 14.2.2.

8.6.2 No action or failure to act by the Owner or Contractor shall constitute a waiver of any right or duty afforded either of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

8.7 Tests

8.7.1 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any portion of the Work to be inspected, tested or approved, the Contractor shall give the Owner timely notice of its readiness so the Owner may observe such inspection, testing or approval. The Contractor shall perform and bear all costs of such inspections, tests and approvals, unless otherwise provided.

8.7.1.1 Where certain testing and inspection requirements are set forth in the various sections of the Contract Documents to be performed at the expense of the Owner, the Owner will retain the services of testing laboratories, agencies, or consultants, to perform such tests or inspections and render such services as may be required to verify that the work fulfills the requirements and intent of the Contract Documents. Such services will be performed in a manner consistent with the requirements of the Owner and the various agencies having jurisdiction over the Work and in accordance with reasonable standards of architectural and engineering practice.

8.7.1.2 The Owner reserves the right to modify the scope of or to re-allocate any of the testing and inspection services specified in the various sections of the Contract Documents to be performed by a testing laboratory, agency or consultant retained by the Owner in connection with the Work when it can be satisfactorily established that such adjustment in scope is consistent with the intent of the Contract Documents. In the event that the Contractor shall not concur with such modification of scope or re-allocation of such services, Contractor shall immediately notify the Owner in writing.

8.7.2 If the Owner determines that any Work requires special inspection, testing, or approval which Article 8.7.1 does not include, Owner will, by written authorization, order the performance of such services by qualified independent testing laboratories, agencies or consultants as may reasonably be required or instruct the Contractor to order such special inspection, testing or approval, and the Contractor shall give notice as provided in Article 8.7.1. If such special inspection or testing reveals a failure of the Work to comply with the requirements of the Contract Documents, the Contractor shall bear all costs thereof, including the cost of the tests, correction of the Work, and the

cost of retesting; otherwise the Owner shall bear such costs, and an appropriate Change Order shall be issued.

8.7.2.1 If Owner's observation or any inspection or testing undertaken pursuant to Article 8.7 reveals a failure in any one of a number of identical or similar items or elements incorporated in the Work to comply with (1) the requirements of the Contract Documents or, (2) with respect to the performance of the Work, with laws, ordinances, rules, regulations, building codes or orders of any public authority having jurisdiction, the Owner will have the authority to order inspection and/or testing of all such items or elements of the Work, or of a representative number of such items or elements of the Work, as Owner may in its reasonable opinion consider necessary or advisable, and the Contractor shall bear all costs thereof, including the cost of the tests, correction of the Work, and the cost of retesting made necessary thereby; provided, however that the Contractor shall not bear the costs of tests, correction of the Work, the costs of retesting, or other, similar costs if Contractor in good faith relies upon the interpretation of the Regulations expressed or clearly implied in the Drawings, Plans or Specifications; and provided further, however, that Contractor shall be responsible for such costs if the failure is the result of Contractor's failure to comply with the Regulations as they may apply to any design work provided by Contractor.

8.7.3 Required certificates of inspection, testing or approval shall be secured by the Contractor and promptly delivered to the Owner.

8.7.3.1 The Contractor shall obtain and deliver promptly to the Owner any certificates of final inspection of any part of the Work or operating permits for any mechanical or electrical apparatus, such as elevators, escalators, boilers, air compressors, fire alarms, etc., which may be required by law to permit full use and occupancy of the premises by the Owner. Except as is otherwise provided in Article 9.1.3, receipt of such permits or certificates by the Owner shall be a condition precedent to Completion of the Work.

8.7.3.2 Copies of reports issued as a result of services performed at the expense of the Owner pursuant to the provisions of this Article will be distributed to all parties to the Contract.

8.7.4 If the Owner is to observe the inspections, tests or approvals required by the Contract Documents, Owner will do so promptly and, where practicable, at the source of supply.

8.7.5 In connection with testing and inspection services performed at the expense of the Owner, the Contractor shall provide samples of materials and/or elements of the Work required as test specimens and shall provide incidental labor and facilities at the site reasonably required in support of such services.

8.7.6 The cost of testing services required solely for the convenience of the Contractor in its scheduling and performance of the Work shall be borne by the Contractor.

8.7.7 The cost of testing services related to remedial operations performed to correct deficiencies in the Work shall be borne by the Contractor.

8.7.8 If, during the course of the performance of any testing, inspection, correction, or repair, the Contractor shall be responsible for the cost of retesting, inspection, correction, or repair, and an appropriate Change Order shall be issued.

balancing, adjusting, or similar work by the Contractor or an agent of the Contractor, it is the opinion of the Owner that the Contractor or said agent has failed to perform such work in accordance with the Contract Documents, the Contractor shall, at its own expense, retain the services of a service organization which is satisfactory to the Owner for the performance of such work.

8.7.9 Contractor agrees to use the E-Verify System (www.uscis.gov) to verify the employment eligibility of all employees assigned to this Contract and all new hires working in the United States, and to provide E-Verify documentation to the SDSTA within ten (10) days of execution of this Contract. If Contractor is a sole proprietorship with no employees, E-Verify is not required. Contractor further agrees to maintain an active registration, during the term of the Contract, with the System for Award Management (www.sam.gov).

8.7.10 SDSTA is required by a Cooperative Agreement (CA) with the U.S. Department of Energy's Office of Science to control access to the facility by foreign nationals and to provide protection against any potential compromise of information, equipment or technology. In order to comply with these requirements, SDSTA has adopted a Foreign Access Policy and Foreign Access Procedure. The Contractor is responsible to ensure compliance with the Foreign Access Policy and Foreign Access Procedure. Without limiting the generality of the foregoing, before a SURF visit or assignment can occur, proof of identity and citizenship are required for all foreign national visitors to verify the foreign national's identity and authority to work (when applicable for the activities involved) in the United States. If foreign nationals will be visiting SURF in association with this contract, the Contractor must notify the SDSTA Representative in advance to ensure compliance with SDSTA's Foreign Access Policy and Foreign Access procedure, and to with any other applicable DOE and SDSTA requirements. Failure to provide appropriate documentation when required, or providing fraudulent documentation, will result in suspension of access approval, removal from SURF, possible cancellation of future access, and possible termination of this Contract for cause. Any changes to the Foreign Access Policy, Foreign Access Procedure, or other DOE or SDSTA requirements implemented after the effective date of this Contract are hereby deemed incorporated into this Contract by reference without the need for a further writing.

8.8 Litigation/Arbitration

8.8.1 Unless otherwise specifically provided in this Agreement, all claims, counter-claims, disputes or other matters in question between the Owner and the Contractor arising out of, or relating to this Agreement, or the breach thereof, will be decided by arbitration if the parties mutually agree, or in a state court of competent jurisdiction within the State of South Dakota. Notice of a request for arbitration shall be sent in writing to the other party to this Agreement within a reasonable time after the claim, dispute or other matter in question has arisen. In no event shall a request for arbitration be made after the applicable statute of limitations for such claim under South Dakota law has run. If the party receiving the notice of request does not agree to arbitration in writing within 10 calendar days, it will be deemed that the parties do not mutually agree to arbitrate the matter. A request to arbitrate shall not be deemed a condition precedent to the institution of legal proceedings. If the parties agree to arbitrate, the provisions of SDCL Chapter 21-25A shall apply.

8.8.2 Claims, disputes, or other matters in controversy arising out of or related to the Contract shall be subject to mediation as a condition precedent to binding dispute resolution. A request for mediation shall be made in writing, and delivered to the other party to the Contract, after which the parties shall reasonably cooperate with respect to the selection of a mediator. and filed with the person or entity

administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings. The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

8.8.3 The Contractor shall carry on the Work and maintain its progress during any dispute or arbitration or litigation proceedings, and the Owner shall continue to make payments to the Contractor to the extent required by the Contract Documents and South Dakota Law.

8.8.4 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner and its employees from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section.

ARTICLE 9

TIME

9.1 Definitions

9.1.1 The Contract Time is the period of time allotted in the Contract Documents for Substantial Completion of the Work as defined in Article 9.1.3, including authorized adjustments thereto.

9.1.2 The date of commencement of the Work is the date established in the Notice to Proceed.

9.1.3 The date of Substantial Completion of the Work is the date certified by the Owner when construction is sufficiently completed in accordance with the Contract Documents so that the Owner can occupy and utilize the Project for the use for which it is intended, and such Work is fully completed in accordance with the Contract Documents except for minor items, adjustments or corrections which have no material effect upon the utilization, function or intrinsic values of the entire Project, including all of its mechanical, electrical and other systems and facilities.

9.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically designated.

9.2 Progress and Completion

9.2.1 All time limits stated in the Contract Documents, including the Construction Completion Schedule, if applicable, are of the essence of the Contract.

9.2.2 The Contractor shall begin the Work on the date of commencement as defined in Article 9.1.2. Contractor shall carry the Work forward expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

9.3 Delays and Extensions of Time

9.3.1 If the Contractor is delayed at any time in the progress of the Work by any act or neglect of the Owner, or by any employee of the Owner, or by changes in the Construction Completion Schedule required by the Owner, or by any separate contractor employed by the Owner, or by changes ordered in the Work, or by labor disputes not caused by the labor practices of the Contractor or any Subcontractor in contravention of applicable labor practices, fire, unusual delay in transportation, severe and unusual weather conditions not reasonably anticipatable, unavoidable casualties, or any other causes beyond the Contractor's control and not occurring due to the fault or neglect of the Contractor, any Subcontractor or any other person for whose acts the Contractor is responsible, then the Contract Time shall be extended by Change Order for such reasonable time as the Owner shall determine or the Owner may elect to require the Contractor to accelerate the Work, in which case the Contract Sum shall be increased by a Change Order in the amount of the direct cost to the Contractor (exclusive of overhead and profit of necessary overtime labor).

9.3.2 Any claim for extension of time shall be made in writing to the Owner not more than 10 days after the commencement of the delay; or within 10 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later, otherwise it shall be waived. In the case of continuing delay only one claim is necessary. The Contractor shall provide an estimate of the probable effect on such delay on the progress of the Work.

9.3.2.1 Such claims shall set forth in detail the nature of the circumstances which form the basis for each such claim, the date upon which each such alleged cause of delay began, or began to affect the timely prosecution of the Work, and ended, or ceased to have an adverse effect upon the timely prosecution of the Work, and the number of days extension of time requested as a consequence of each such alleged cause of delay. The Contractor shall provide such supporting documentation as the Owner may require, including, where appropriate, a revised Construction Completion Schedule indicating all of the activities affected by the circumstances which form the basis for the claim.

9.3.2.2 The Contractor shall not be entitled to a separate extension of time as a consequence of each one of a number of causes of delay which may have a concurrent or interrelated effect on the progress of the Work.

9.3.2.3 The Owner shall have the right to defer its decision or decisions with reference to any claim or claims for an extension of time made pursuant to the provisions of this Article until the facts or circumstances which form the basis for such claim or claims may be fully assessed to the Owner's reasonable satisfaction.

9.3.2.4 Notwithstanding the provisions of Article 9.3.2, claims for an extension of time arising out of authorized changes in the Work shall be made in writing prior to or concurrent with the submission of the Contractor's proposal pursuant to such change. No extension of time arising out of changes in the Work will be granted subsequent to the date upon which the Contractor is authorized to proceed with such change or changes in the Work unless specific provisions governing a subsequent determination of an extension of time have been incorporated in such authorization to proceed with such change or changes in the Work. No claim for damages or separate compensation for delay arising from such change in the Work shall be recognized or be deemed valid, it being understood that any additional cost to the Contractor arising from such change shall be included in the amended Contract Sum set forth in such Change Order.

9.3.2.5 Time extensions will not be granted for rain, wind, snow, or other natural phenomena of normal intensity for the locality where work is performed. Determinations of the extent of delay attributable to unusual weather phenomena shall be made by comparing the weather for the contract period involved with the average of the preceding 5 year climactic range during the same period on the calendar. National Oceanic and Atmospheric Administration National Weather Service statistics for the locality or area where the work is performed shall be used to determine the 5 year average weather conditions. Time extensions for weather delays do not entitle the Contractor to "extended overhead" recovery.

9.3.3 Should the Contractor fail to substantially complete the Work within the time agreed upon in the Contract Documents, or within such extra time as may have been allowed by increases in the Contract or by formally approved extensions granted by the Owner, the Contractor and the Contractor's surety shall be liable for and shall pay the Owner the sums stipulated in the Agreement for Construction as liquidated damages for each calendar day of delay until the Work is substantially complete. The parties recognize it would be impracticable or extremely difficult to fix the actual damages resulting from a delay in substantial completion of the Work, and that the amount set out in the Agreement for Construction is fair and reasonable. This sum is not a penalty but is liquidated damages due the Owner from the Contractor by reason of inconvenience to the Owner, added cost of engineering and supervision, and other items which have caused an expenditure of funds resulting from the Contractor's failure to complete the Work within the time specified in the Contract. In addition to liquidated damages, if any delay on the part of the Contractor, any Subcontractor or Sub-subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable results in any claim by third parties against the Owner arising out of such delay, the Contractor shall pay, satisfy, and discharge all losses, damages and expenses arising out of such claims, including attorneys' fees, and shall indemnify and hold harmless the Owner and its agents and employees from and against all costs, fees, losses, damages, and expenses arising out of such claims enforced against the Owner.

9.3.4 No extension of time will be granted to the Contractor for any delay other than those described in Article 9.3.1.

9.3.4.1 Should the Contractor fail, refuse or neglect to supply a sufficiency of workers or to deliver the materials with such promptness as to prevent delay in the progress of the Work, or fail in any material respect diligently to commence and prosecute the Work and to proceed in accordance with the approved

construction schedule, or if the different parts thereof are not commenced, prosecuted, finished, delivered or installed in such manner as will insure substantial completion in accordance with the approved Construction Completion Schedule, or if the Contractor shall fail in the performance of any of its obligations under this Contract in any material respect, the Owner shall have the right to direct the Contractor, upon 3 business days-notice at the Contractor's cost and expense, to furnish such additional labor and to expedite deliveries of materials (or the Owner may furnish such labor and expedite such deliveries at the cost of the Contractor), which labor or expediting shall, in the Owner's opinion, be sufficient to speed up and complete the Work in accordance with the Construction Completion Schedule.

9.3.4.2 If such additional labor shall not be available, the Owner shall have the right to direct the Contractor at the latter's own cost and expense, to work overtime to such an extent as will be sufficient, in the Owner's opinion, to speed up and complete the Work as herein provided.

9.3.5 The Contractor's right to make a claim or claims for an extension of time, as provided in Article 9.3.1, shall not preclude the Contractor's right to make a claim for delay damages arising out of the Owner's significant interference, by action or inaction, with the Contractor's Work.

9.4 Beneficial Occupancy

9.4.1 The Owner shall have the privilege of Beneficial Occupancy and the use and benefit of designated areas, subdivisions or portions of the Project prior to completion and acceptance of the entire Project, provided that such Beneficial Occupancy shall not unduly interfere with the Contractor's operations nor unduly delay Contractor in completing the entire Work. Such occupancy and use shall be further subject to the provisions set forth herein.

9.4.2 In the event that the Owner desires to exercise the privilege of Beneficial Occupancy, Owner shall give reasonable notice to the Contractor. The Contractor shall then cooperate with the Owner in providing services and facilities reasonably required for the health, safety and comfort of the occupants and other parties lawfully present and/or entering or leaving the premises. Mutually acceptable arrangements shall be made between the Owner and the Contractor with regard to procedures, terms and conditions governing the operation and maintenance of such services and facilities as may be utilized for the benefit of the Owner. The Owner will assume proportionate and reasonable responsibility for protection of the Work, operation of systems, equipment and/or utilities required to provide such services, in part or in total, including proportionate and reasonable expenses of operation incidental thereto. No such Beneficial Occupancy shall accelerate the commencement of any warranty period on any system but only on the particular components being utilized.

9.4.3 The Owner's Beneficial Occupancy or use of such designated areas, subdivisions, or portions of the Work shall not constitute acceptance of systems, materials, or elements of the Work which are not in accordance with the requirements of the Contract Documents; nor relieve the Contractor from its obligations to complete the Work; nor for responsibility for loss or damage due to or arising out of defects in, or malfunctioning of, systems, materials, equipment, or elements of the Work; nor from other unfulfilled obligations or responsibilities of the Contractor under the Contract. If, however, damage results from any act of the Owner or those for whom Owner is

responsible, the Owner will assume its proportionate responsibility for such damage.

ARTICLE 10 PAYMENTS AND COMPLETION

10.1 Contract Sum: The Contract Sum is stated in the Agreement For Construction.

10.2 Schedule of Values: Before the first Application for Payment, the Contractor shall submit to the Owner a schedule of values allocated to the various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the Owner may require. The format and number of copies of such Applications for Payment shall be as directed by the Owner. This schedule, unless objected to by the Owner, shall be used as a basis for the Contractor's Applications for Payment.

10.3 Monthly Application for Payment

10.3.1 No later than the 3rd day of each month, or the first business day following the 3rd if the third falls on a weekend or is a holiday, the Contractor shall submit to the Owner its monthly itemized Application for Payment. The Contractor shall not submit more than one pay application per month. The monthly Application for Payment shall be on AIA Document G702, or on a form approved by Owner, and supported by such data substantiating the Contractor's right to partial payment as the Owner may require; including but not limited to releases, and waivers of liens in forms acceptable to Owner.

10.3.1.1 In applying for payment, the Contractor shall submit its monthly payment estimate based upon the approved schedule of work for the project, itemized in such form and supported by such evidence as will show Contractor's right to the payment claimed. Claims made on account of materials delivered and suitably stored at the site, but not incorporated in the Work, shall be conditioned upon submission by the Contractor of bills of sale or such other procedure as will establish the Owner's title to such material or otherwise adequately protect the Owner's interest.

10.3.1.2 If the Contractor chooses to apply for payment for materials which cannot be incorporated into the Work, and cannot be stored on the site, Contractor may do so provided the following conditions are met: Unless otherwise agreed to by the Owner, the material shall be stored in a bonded or insured commercial warehouse within a geographic radius of 15 miles of the construction site, with the Owner being listed on the bond or insurance certificate as the sole beneficiary in the case of loss or damage to the stored materials. The Contractor shall be responsible for all storage, insurance or transportation costs associated with the materials. Conditions of insurance will apply to applicable portions of this Article 10.3.1.2. Contractor shall provide the Owner with bills of sale or such other documents as will establish the ownership of the materials.

10.3.1.3 Reimbursement for pre-approved travel expenses, if any, will not exceed Federal Travel Regulations (FTR) standard rates for the applicable travel location. Lodging expenses will be reimbursed at FTR rates or the actual lodging cost, whichever is less; airfare shall be reimbursed at the actual cost of a coach class ticket. No additional burdens or overheads will be applied to travel expense reimbursements.

10.3.1.4 Applications for payment should be addressed to:

South Dakota Science and Technology Authority
630 East Summit Street
Lead, SD 57754

and submitted to the Owner's Representative. A scanned/emailed Application for Payment is preferred, submitted to AP@Sanfordlab.org. Paper copies of Applications for Payment are not necessary.

10.3.2 The Contractor warrants that title to all Work, materials and equipment covered by an Application for Payment will pass to the Owner either by incorporation in the construction or upon the receipt of payment by the Contractor, whichever occurs first, free and clear of all liens, claims, security interests or encumbrances, hereinafter referred to in this Article as "liens;" and that no Work, materials or equipment covered by an Application for Payment will have been acquired by the Contractor, or by any other person performing Work at the site or furnishing materials and equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Contractor or such other person.

10.3.3 Monthly applications received not in accordance with 10.3.1 will be treated as if submitted on the 3rd day of the following month.

10.4 Progress Payments

10.4.1 Based upon the review of the Monthly Application for Payment, the Owner shall make progress payments to the Contractor in such amounts as the Owner reasonably determines are properly due less the aggregate of previous payments in each case. Payment of amounts determined to be due by the Owner under each Monthly Application for Payment shall be due to the Contractor 20 days after the 15th of each month. The Owner shall at all times retain an amount sufficient to complete the Work. Contractor shall submit a lien waiver, in a form prescribed by and in accordance with applicable law, to the Owner following each Progress Payment.

10.4.2 The Contractor shall promptly pay each Subcontractor, upon receipt of payment from the Owner, out of the amount paid to the Contractor on account of such Subcontractor's Work, the amount to which said Subcontractor is entitled reflecting any amounts actually withheld, if any, from payments to the Contractor on account of such Subcontractor's Work. The Contractor shall not withhold retainage from its Subcontractors unless retainage is withheld from the Contractor by the Owner. The Contractor shall, by an appropriate agreement with each Subcontractor, require each Subcontractor to make payments to his Sub-subcontractors in similar manner. Contractor shall require Subcontractors to submit lien waivers, in a form prescribed by and in accordance with applicable law, to Contractor following each Progress Payment to Contractor, and subsequent payments made to Subcontractors. Subcontractors' lien waivers to Contractor will be submitted to Owner.

10.4.3 The Owner shall, on request, furnish to any Subcontractor, if practicable, information regarding the percentages of completion or the amounts applied for by the Contractor and the action taken thereon by the Owner on account of Work done by such Subcontractor.

10.4.4 The Owner shall have no obligation to pay or to see to the payment of any moneys to any Subcontractor except as may otherwise be required by law.

10.4.5 No Certification for Payment, nor any progress payment, nor any partial or entire use or occupancy of the Project by the Owner, shall constitute acceptance or approval of any Work not in accordance with the Contract Documents.

10.5 Payments Withheld

10.5.1 The Owner may decline to certify the full payment of the amount requested by the Contractor in the monthly application to the extent necessary to reasonably protect the Owner. If the Owner is unable to certify payment in the amount of the Application, Owner will, within 10 days after receipt of the monthly application, notify the Contractor in writing the reasons a certification cannot be made. If the Contractor and the Owner cannot agree on a revised amount within 5 days of Owner sending written notice, the Owner will promptly issue a Certification for Payment for the amount for which certification may be made. The Owner may also decline to certify payment because of subsequently discovered evidence or subsequent observations. Owner may nullify the whole or any part of any Certification for Payment previously issued, and may withhold payment of all or any part of an Application for Payment, to such extent as may be necessary to protect the Owner from loss because of:

10.5.1.1 Defective work not remedied;

10.5.1.2 Third party claims filed or reasonable evidence indicating probable filing of such claims;

10.5.1.3 Failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;

10.5.1.4 Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;

10.5.1.5 Damage to the Owner or another contractor;

10.5.1.6 Reasonable evidence that the Work will not be completed within the Contract Time;

10.5.1.7 Failure to carry out the Work in accordance with the Contract Documents;

10.5.1.8 A lien or attachment on the Work the subject of this Agreement is filed and such lien is not discharged within 5 days of demand from the Owner;

10.5.1.9 Failure of the Contractor and/or of the mechanical or electrical Subcontractors to comply with the mandatory requirements for maintaining "up-to-date" Record Drawings;

10.5.1.10 Incomplete or otherwise inadequate Application for Payment; or

10.5.1.11 Reasonable evidence that the Contractor is in material breach of its obligations under the Contract.

10.5.2 When the above grounds in Article 10.5.1 are removed, payment shall be made for amounts withheld because of them.

10.6 Substantial Completion

10.6.1 When the Contractor considers that the Work, or a designated portion thereof which is acceptable to the Owner, is Substantially Complete as defined in Article 9.1.3 the Contractor shall prepare for submission to the Owner a list of items to be completed or corrected. The failure to include any item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. When the Owner on the basis of an inspection determines that the Work or designated portion thereof is Substantially Complete, the Owner will then prepare a Certificate of Substantial Completion which shall establish the Date of Substantial Completion, shall state the responsibilities of the Owner and the Contractor for security, maintenance, heat, utilities and damage to the Work, and shall fix the time within which the Contractor shall complete the items listed therein. Warranties and Guarantees required by the Contract Documents shall commence on the Date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion. The Certificate of Substantial Completion shall be submitted to the Owner and the Contractor for their written acceptance of the responsibilities assigned to them in such Certificate.

10.6.2 Upon Substantial Completion of the Work or designated portion thereof and upon application and certification by the Contractor, the Owner shall make payment, reflecting adjustment for defective or incomplete work, if any, for such Work or portion thereof, as provided in the Contract Documents. Double the amount necessary to complete the Work may be retained by the Owner.

10.7 Final Completion and Final Payment

10.7.1 Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Owner will promptly make such inspection and, if Owner determines that the Work has been completed in accordance with the terms and conditions of the Contract Documents, the entire unpaid balance will be determined to be due and payable to the Contractor.

10.7.2 The final payment shall not become due until the Contractor submits to the Owner (1) An affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered have been paid or will be paid with Owner's final payment to Contractor and that there are no claims, obligations or liens outstanding or unsatisfied for labor, services, material, equipment, taxes or other items performed, furnished or incurred for or in connection with the Work which will in any way affect Owner's interests; (2) A general release executed by Contractor waiving, upon receipt of final payment by Contractor, all claims, except those claims previously made in writing to Owner and remaining unsettled at the time of final payment, and an agreement to indemnify, defend and hold Owner harmless from and against any claims made by suppliers, Subcontractors, Sub-Subcontractors or others for work or material provided in connection with the Project or the Work; (3) All as-built documents, operating manuals, warranties and other deliverables required by the Contract Documents. All guarantees and warranties required by the Contract Documents shall include an assignment from the Contractor, Subcontractors,

vendors, suppliers and manufacturers to the Owner, as well as a list of the names, addresses and telephone numbers of all subcontractors and any other entities providing these guarantees or warranties.

10.7.3 Owner shall make final payment of all sums due to the Contractor 30 days after the completion and acceptance of the project by the Owner and Contractor's compliance with Article 10.7.2 above.

10.7.4 The acceptance of final payment by the Contractor shall constitute a complete and unconditional waiver and release of any and all claims by the Contractor of whatever nature, and regardless whether they are then known or unknown, and a complete and unconditional release of the Owner and every person for whom the Owner is responsible for any and all matters related to the Contract or otherwise, except those claims which have been made in writing and identified by the Contractor as not having been settled at that time. After final payment, Contractor shall submit to Owner a final lien waiver in a form prescribed by and in accordance with applicable law.

ARTICLE 11 CONTRACTOR'S RESPONSIBILITY FOR PROJECT SAFETY

11.1 Contractor's Responsibility for Project Safety: Contractor's responsibility for project safety is attached hereto as Exhibit B and incorporated herein by reference.

ARTICLE 12 INSURANCE

12.1 During the term of this Contract, Contractor shall maintain in effect at all times, and provide proof of such coverage to the Authority, insurance as described on the attached Exhibit A, which is incorporated herein by this reference.

12.2 Prior to the commencement of work, Contractor shall submit certificates of insurance policies to the Authority for review and approval.

12.3 By executing this Contract, Contractor authorizes the Authority to make direct inquiry of Contractor's insurer or insurance agent concerning the status of the insurance required by this Agreement.

12.4 Contractor and all lessors or other owners (except Owner) of equipment used by Contractor and in connection with the performance of the Work and their insurers shall waive all rights of recovery or subrogation as against Owner for damage to or destruction of such equipment. Contractor shall provide evidence of such waivers before the commencement of the Work and periodically thereafter as requested by Owner.

ARTICLE 13 CHANGES IN THE WORK

13.1 Change Orders: This Contract may be modified or amended only in writing in the form of a Change Order signed by both parties, except in the case of Contractor receiving a written order signed by the Owner as per 13.3.12. A Change Order is a written order to the Contractor signed by the Owner, issued after execution of the Contract, authorizing a change in the Work or an adjustment in the Contract Sum or the Contract Time. The Contract Sum and the Contract Time may be changed only by Change Order. A Change Order signed by the

Contractor indicates its agreement therewith.

13.2 The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and the Contract Time being adjusted accordingly. All such changes in the Work shall be authorized by Change Order, and shall be performed under the applicable conditions of the Contract Documents.

13.3 The cost or credit to the Owner resulting from a change in the Work shall be determined in one or more of the following ways:

13.3.1 By mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation. Such lump sum proposals shall be supported by a completely detailed analysis of the proposed change subdivided into the Work of the Contractor and/or the Work of each Subcontractor and/or Sub-subcontractors involved in the proposed change, as applicable, with each such subdivision further broken down into the following elements:

13.3.1.1 Number of man-hours of labor to be performed by each trade, craft or classification of employee involved in the proposed change.

13.3.1.2 The hourly rate for each such trade, craft or classification of employee, including the appropriate wage supplement for social security, old age and unemployment contributions, applicable payroll taxes, health insurance, fringe benefits required by agreement or custom, workers' compensation insurance, other employee benefits and such other employee benefits as may be established by statute or by written agreement negotiated by and between organizations representing such crafts or trades and representatives of their employers.

13.3.1.3 The estimated quantity of each item or element of material and/or equipment entering into the proposed change.

13.3.1.4 The unit cost of each such item or element of material and/or equipment.

13.3.1.5 Rental of items or units of construction plant and equipment with a schedule of the period or periods of use of such item or unit in connection with the proposed change.

13.3.1.6 Rental terms and rates for each such item or unit of construction plant and equipment. Rental for equipment shall be based on the invoiced cost for rentals from third party vendors. For Contractor owned equipment, rental rates shall be based on the following:

13.3.1.6.1 Hourly rental rates shall be based on 80% of the applicable rates for equipment listed in the 'Green Book', latest edition, (published by the Associated Equipment Distributors, 615 West 22nd Street, Oakbrook, Illinois, 60523).

13.3.1.6.2 Hourly rental rates for equipment not listed in the 'Green Book' shall be based on 100% of the applicable rates for equipment listed in the 'Blue Book', latest edition (published by Dataquest, 1290 Ridder Park Drive, San Jose, California, 95131).

13.3.1.6.3 Hourly rental rates determined from the 'Green Book' or 'Blue Book' includes all items of cost and expense to the Contractor, including, but not limited to, gas, oil, maintenance, repairs, insurance, and transportation to and from construction site.

13.3.1.7 Power and/or other utilities entering into the proposed change.

13.3.1.8 Rates and terms applicable to such power and/or other utilities.

13.3.1.9 Additional premiums, if applicable, for the extension of insurance and bond coverages as required herein to the proposed change.

13.3.1.10 Applicable federal, state and local taxes.

13.3.1.11 Indirect Cost and Fee computed as a percentage override applied to net cost in accordance with the provisions of this Article.

13.3.1.12 Costs for any subcontractors anticipated to be utilized in the proposed change.

13.3.2 By unit prices stated in the Contract Documents or subsequently agreed upon;

13.3.3 By cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee;

13.3.4 By the method provided in Article 13.3.1.1 through 13.3.1.12.

13.3.5 The Contractor shall require that the itemized analysis of each portion of the proposed change to be performed by a Subcontractor and/or Sub-subcontractor be prepared by each such Subcontractor and/or Sub-subcontractor in accordance with the format established herein. Copies of all such itemized analyses shall be appended to the Contractor's itemized analysis of the proposed change in the Work.

13.3.6 For purposes of calculating Indirect Cost and Fee in relation to Change Orders, the net cost of a proposed change in the Work shall include, and unless otherwise agreed in writing prior to the performance of the proposed change, shall be limited to the fair and reasonable estimated cost of the total of all of the individual items, elements, or components involved in proposed change in the Work (including adds and deducts) as set forth in Articles 13.3.1.1 through 13.3.1.11.

13.3.7 For each portion of a proposed net additive change in the Work to be performed directly by the Contractor, the cost to Owner shall include an increment for the Indirect Cost and Fee of the Contractor associated with such portion of proposed change of 12% of the net cost of the Work.

13.3.8 For each portion of a proposed net additive change in the Work to be performed directly by a Subcontractor, in addition to an increment or increments for Subcontractor's Indirect Cost and profit associated therewith of 12%, the cost to the Owner shall include a supplementary increment or increments for Contractor's Indirect Cost and Fee associated therewith of 8 % of the net cost of the Work.

13.3.9 In computing Indirect Cost and Fee, the percentage for Indirect Cost and Fee shall be taken on basic wage only. No percentage override shall be taken on social security, old age and unemployment contributions, contributions to Industry funds,

education, and Training Funds and/or similar wage supplements, contributions or benefits.

13.3.10 Items, elements or components of changes in the Work or proposed changes which shall be classified as Indirect Cost and excluded from net cost shall include, but shall not necessarily be limited to:

13.3.10.1 All classifications of administrative, and clerical personnel not engaged manually in the performance of the Work, including timekeepers, clerks, watchmen, and security personnel.

13.3.10.2 Miscellaneous expense, job burden, and/or other generalized categories of cost or expense.

13.3.10.3 Insurance other than insurance coverage required herein.

13.3.11 In changes in the Work involving both additions to and deductions in the Work, or any portion or element thereof, or the relocation or rearrangement of items, portions or elements thereof, or the substitution of any items, portions or elements thereof, such additions and deductions shall be balanced and the Contractor's Fee computed on the same basis for deductions as well as additions. If at the request of the Owner a number of unrelated changes in the Work are set forth individually, summarized and totaled in a single Change Order for reasons of administrative convenience, the amount or amounts of individual deductive changes in the Work set forth therein shall, in any event, be balanced against the amount or amounts of individual additive changes in computing the Contractor's Fee for the purpose of adding and deducting.

13.3.12 If none of the methods set forth in Articles 13.3.1, .3.2 or .3.3 is agreed upon, the Contractor, provided it receives a written order signed by the Owner, shall promptly proceed with the Work involved. The cost of such Work shall then be determined by the Owner on the basis of the reasonable expenditures and savings of those performing the Work attributable to the change, including, in the case of an increase in the Contract Sum, a reasonable allowance for the Contractor's Fee. In such case, and also under Articles 13.3.3 and .3.4 above, the Contractor shall keep and present, in such form as the Owner may prescribe, an itemized accounting together with appropriate supporting data for inclusion in a Change Order, at the end of each day, and will submit to the Owner: (a) daily time slips, submitted to Owner on a daily basis, showing the name of each worker employed on such work, the number of hours which the worker is employed thereon, the character of the worker's duties, and the wages and benefits to be paid to the worker and on his behalf, and (b) a memorandum of the equipment used in the performance of such Work, together with the rental claimed therefor. Unless otherwise provided in the Contract Documents, cost shall be limited to the following: cost of materials, including sales tax and cost of delivery; cost of labor, including social security, old age and unemployment insurance, and fringe benefits required by agreement or custom; worker's compensation insurance; bond premiums; rental value of equipment and machinery; and the additional costs of supervision and field office personnel directly attributable to the change. Pending final determination of cost to the Owner, payments on account shall be made on the basis of amounts reasonably estimated by the Owner. The amount of credit to be allowed by the Contractor to the Owner for any deletion or change which results in a net decrease in the Contract Sum will be the amount of the actual net cost as confirmed by the Owner and agreed to by the Owner. When both additions and credits covering related Work or substitutions are

involved in any one change, the allowance or credit for the Contractor's Fee shall be figured on the basis of the net increase, or decrease, if any, with respect to that change.

13.4 Differing Site Conditions

13.4.1 The Contractor shall promptly, upon discovery, give a written notice to the Owner of (1) subsurface or physical conditions at the site which differ materially from those indicated in this Contract, or (2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

The Owner shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the Work under this Contract, whether or not changed as a result of the conditions, the Contract Sum and Contract Time shall be adjusted as provided in this Article, provided that the Work has been ordered in writing by Owner as provided in Article 13.1 above. There shall be included in the adjustment to the Contract Sum under the preceding sentence a reasonable allowance for any extraordinary increase in Indirect Cost borne by the Contractor because of such additional work.

13.5 Claims for Additional Cost or Time

13.5.1 If the Contractor wishes to make a claim for an increase in the Contract Sum or Contract Time, Contractor shall give the Owner a written notice thereof within 10 days after the occurrence of the event giving rise to such claim or within 10 calendar days after the Contractor first recognizes the condition giving rise to the Claim, whichever is later, except where claim is made in connection with deviations in Shop Drawing or Sample submittals, in which case claim shall be made in writing to the Owner concurrently with such submittals. This notice shall be given by the Contractor before proceeding to execute the Work. No such claim shall be valid unless so made. Any change in the Contract Sum or Contract Time resulting from such claim shall be authorized by Change Order.

13.5.2 If the Contractor claims that additional cost or time is involved because of, but not limited to, (1) any order by the Owner to stop the Work pursuant to Article 4.2 where the Contractor was not at fault, or (2) any deviation in Shop Drawing or Sample submittals from the requirements of the Contract Documents, the Contractor shall make such claim as provided in Article 13.5.1.

ARTICLE 14 UNCOVERING AND CORRECTION OF WORK

14.1 Uncovering of Work

14.1.1 If any portion of the Work should be covered contrary to the written and timely request of the Owner, or the requirements specifically expressed in the Contract Documents, it must, if required in writing by the Owner, be uncovered for Owner's observation and shall be replaced at the Contractor's expense.

14.1.2 If any other portion of the Work has been covered which the Owner has not specifically required to observe prior to being covered, the Owner may request to see such Work and it shall be uncovered by the Contractor. If such Work is found to be in accordance with the Contract Documents, the cost of uncovering and replacement shall,

by appropriate Change Order, be charged to the Owner. If such Work is found not to be in accordance with the Contract Documents, the Contractor shall pay such costs unless it is found that this condition was caused by the Owner or a separate contractor as provided in Article 7.1, in which event the Owner shall be responsible for the payment of such costs.

14.2 Correction of Work

14.2.1 The Contractor shall promptly correct all Work failing to conform to the Contract Documents whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such non-conforming Work, including compensation for the Owner's additional services made necessary thereby.

14.2.2 If, at any time after the Owner's acceptance of the fully completed Project, any of the Work is found not to have been provided in conformance with the Contract Documents, or, if within one year after such acceptance any of the Work, is otherwise found to be faulty or defective, the Contractor shall correct it promptly after receipt of a written notice from the Owner to do so. The Contractor shall also repair or replace any part of the Work which is damaged by the defective condition or the remedial Work. This obligation shall survive termination of the Contract, subject to the terms of any applicable statute of limitations. The Owner shall give such notice promptly after discovery of the condition.

14.2.3 The Contractor shall remove from the Site all portions of the Work which are non-conforming and which have not been corrected under Articles 5.4.1, 14.2.1 and 14.2.2, unless removal is waived by the Owner.

14.2.4 If the Contractor fails to correct non-conforming Work as provided in Articles 5.4.1, 14.2.1 and 14.2.2, the Owner may correct it in accordance with Article 4.3.

14.2.5 If the Contractor does not proceed with the correction of such non-conforming Work within a reasonable time fixed by written notice from the Owner, the Owner may remove it and may store the materials or equipment at the expense of the Contractor. If the Contractor does not pay the cost of such removal and storage within 10 days thereafter, the Owner may upon 10 additional days written notice sell such Work at auction or a private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor. If such proceeds of sale do not cover all costs which the Contractor should have borne, the difference shall be charged to the Contractor and an appropriate Change Order shall be issued. If the payments then or thereafter due to the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner upon demand.

14.2.6 The Contractor shall bear the cost of making good all work of the Owner or separate contractors destroyed or damaged by such correction/removal.

14.2.7 Subject to the terms of any applicable statute of limitations, nothing contained in this Article shall be construed to establish a period of limitation with respect to any other obligation which the Contractor might have under the Contract Documents, including Article 5.4 hereof. The establishment of any time period prescribed by the terms of any warranty required by the Contract Documents relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which its obligation to comply with the Contract

Documents may be sought to be enforced, nor the time within which proceedings may be commenced to establish the Contractor liability with respect to Contractor's obligations other than specifically to correct the Work.

14.3 Acceptance of Defective or Non-Conforming Work: If the Owner prefers to accept non-conforming Work, Owner may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect a reduction in the Contract Sum where appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 15 UNDERGROUND WORK

15.1 Notification of Hazards: Contractor is hereby notified that the project involves work in a former underground gold mine. The surface property related and adjacent to the underground property contains heavy machinery, high-voltage electrical connections and conduits, open catwalks, and other elevated walkways, hidden hazards of tripping or falling and numerous other serious risks of health, life and safety, and risks of damage to property. The underground property also includes and contains heavy machinery, high-voltage electrical connections and conduits, open catwalks and other elevated walkways and hidden hazards of tripping or falling. Entering the underground property involves a substantial risk of underground fires, underground floods, collapse, failure of lifts and hoists, suffocation, being trapped, being crushed to death and numerous other serious risks to health, life and safety, and risks of damage to property.

15.2 Acknowledgement of Risk and Release: All persons going underground, including Contractor, Contractor's officers, directors, employees, agents, consultants, subcontractors and representatives, and each of their officers, directors, employees, agents, consultants, subcontractors and representatives must execute the Acknowledgement of Risk and the Release, Agreement Not to Sue and Waiver in the forms attached hereto, marked collectively as Exhibits G & H and incorporated herein by this reference.

ARTICLE 16 TERMINATION OF THE CONTRACT

16.1 Termination by the Contractor: If the Work is stopped for a period of 90 days under an order of any court or any public authority having jurisdiction, or as a result of an act of government, such as a declaration of a national emergency making materials unavailable, through no act or fault of the Contractor or Subcontractor or their agents or employees or any other persons performing any of the Work under a contract with the Contractor, then the Contractor may, upon 7 additional days written notice to the Owner, terminate the Contract and recover from the Owner payment for all Work executed to the termination date, together with reasonable demobilization costs. The Contractor shall have no other right to terminate the Contract for any reason.

16.2 Termination by the Owner

16.2.1 If the Contractor is in default under the Contract Documents, the Owner may, without prejudice to any other right or remedy and upon written notice to the Contractor, terminate the contract.

Prior to termination of the Contract, the Owner shall give the Contractor and its surety 10 calendar days written notice, during which the Contractor and/or its surety may rectify the cause of the termination. If rectified to the satisfaction of the Owner within said 10 days, the Owner may rescind its notice of termination. If not rectified, the

termination for cause shall become effective at the end of the 10 day notice period. In the alternative, the Owner may postpone the effective date of the termination notice, at its sole discretion, if it should receive reassurances from the Contractor and its surety that the causes of termination will be remedied in a time and manner which the Owner finds acceptable. If at any time more than 10 days after the notice of termination, the Owner determines that the Contractor or its surety has not or is not likely to rectify the causes of termination in an acceptable manner or within the time allowed, then the Owner may immediately terminate the Contract for cause by giving written notice to the Contractor and its surety. In no event shall termination for cause terminate the obligations of the Contractor's surety on its payment and performance bonds.

Notice of termination, whether initial or given after a period of postponement, may be served upon the Contractor and the surety by mail or any other means at their last known places of business in South Dakota or elsewhere, by delivery to any officer or management/supervisory employee of either wherever they may be found, or, if no such officer, employee or place of business is known or can be found by reasonable inquiry within 3 days, by posting the notice at the job site. Failure to accept or pick up registered or certified mail addressed to the last known address shall be deemed to be delivery.

Upon termination of the Contract, the Owner shall take possession of the premises and of all materials, tools, appliances, equipment, and other facilities on the Project, wherever stored, and may finish the Work by whatever method it may deem expedient. The Contractor shall assign Subcontracts to the Owner or to a designated substitute contractor promptly upon request. In such case the Contractor shall not be entitled to receive any further payment until the Work is finished and the Owner has determined its damages owing to the Contractor's default.

16.2.2 If the costs of finishing the Work, including services made necessary by the Contractor's default, and all other damages suffered by the Owner on account of the Contractor's default, exceed the unpaid balance of the Contract Sum, the Contractor shall pay the difference to the Owner, and this obligation for payment shall survive the termination of the Contract. If the costs of finishing the Work are less than the unpaid portion of the Contract Sum, the Owner shall pay the unpaid balance of any amount properly owing to the Contractor for all Work executed to the date of termination, less actual damages. The Owner will not be obligated to pay any further amount on account of Direct Cost, Indirect Cost or Fee.

16.2.3 If it should be judicially determined that the Owner improperly terminated this Contract for cause, then the termination shall be deemed to be a termination for the convenience of the Owner.

16.3 Termination for Convenience

16.3.1 The Owner may terminate this Contract at any time without cause, in whole or in part, upon giving the Contractor notice of such termination. Upon such termination, the Contractor shall immediately cease Work and remove from the project site all of its labor forces and such of its materials as Owner elects not to purchase or to assume in the manner hereinafter provided. Upon such termination, the Contractor shall take such steps as Owner may require assigning to the Owner the Contractor's interest in all Subcontracts and purchase orders designated by Owner. After all such steps have been taken to Owner's satisfaction, the Contractor shall receive as full compensation for termination and assignment the following:

- (1) All amounts then otherwise due under the terms of this Contract,
- (2) Amounts due for Work performed subsequent to the latest Request for Payment through the date of termination,
- (3) Reasonable compensation for the actual cost of demobilization incurred by the Contractor as a direct result of such termination. The Contractor shall not be entitled to any compensation for lost profits or for any other type of contractual compensation or damage other than those provided by the preceding sentence. Upon payment of the foregoing, Owner shall have no further obligations to Contractor of any nature.

EXHIBIT A

INSURANCE REQUIREMENTS

- A. Minimum Insurance - Prior to commencement of work, the Contractor will procure and maintain the following minimum types and levels of insurance:
- i. Commercial general liability insurance with limits of liability not less than \$10,000,000.00 per occurrence, \$10,000,000.00 general aggregate, \$5,000,000.00 products completed/operations and (if not covered by a separate automobile liability policy) hired and non-owned automobiles covering bodily injury, property damage, and personal and advertising injury. These limits may be satisfied with a combination of an underlying commercial general liability policy and an appropriate umbrella or excess policy.
 - ii. In the case of leased or owned automobiles, business automobile liability insurance with limits of \$1,000,000 combined single limit per accident for bodily injury and property damage. Such insurance shall include coverage for owned, non-owned, and hired automobiles.
 - iii. Workers' Compensation and Employers' Liability covering payment of workers' compensation benefits for injury, death, occupational disease, or hearing loss as provided by South Dakota law, secured by workers' compensation insurance or by self-insurance or other means permitted under SDCL Ch. 62-5 which is acceptable to the SDSTA along with Employers' Liability limits of \$1,000,000.00 per accident, \$1,000,000.00 each employee by disease, and a policy limit of \$1,000,000.00 by disease.
 - iv. If not included in the Contractor's Commercial General Liability Policy, Contractor's pollution liability coverage with limits of not less than \$5,000,000.00 per occurrence and \$5,000,000.00 aggregate. SDSTA and its officers, agents, and employees; Fermi Research Alliance, LLC, and its officers, agents, employees; University of Chicago and its officers, agents, and employees; University Research Association, LLC, and its officers, agents, and employees; the United States Department of Energy and its officers, agents, and employees; Barrick Gold Corporation, Homestake Mining Company of California, and the affiliates of Barrick and Homestake, and each of its and their officers, directors, employees and agents, and any visitor, contractor or consultant Homestake or Barrick invite onto, allows or authorizes to use SURF are to be covered as additional insureds with respect to liability arising out of activities performed by or on behalf of any Contractor or Project participant.
- B. Insurance Provisions Applicable to all Coverages
- i. Commercial General Liability and Automobile Liability Coverages.
 - a. Provide general liability coverage (including contractual liability, broad form property damage coverage, and severability of interest) at least as broad as the industry standard Insurance Services Office ("ISO") form CG 00 01, or its equivalent; and CA 00 01 with regard to automobile liability coverage, or its equivalent.
 - b. SDSTA and its officers, agents, and employees; Fermi Research Alliance, LLC, and its officers, agents, employees; University of Chicago and its officers, agents, and employees; Universities Research Association, LLC, and its officers, agents, and employees; the United States Department of Energy and its officers, agents, and employees; Barrick Gold Corporation, Homestake Mining Company of California, and the affiliates of Barrick and Homestake, and each

of its and their officers, directors, employees, and agents and any visitor, contractor or consultant Homestake or Barrick invites onto, allows or authorizes to use SURF are to be covered as additional insureds with respect to liability arising out of activities performed by or on behalf of Contractor; products and completed operations of Contractor; premises, owned, leased, hired or borrowed by Contractor or Project Participant; and automobiles owned, leased, hired, or borrowed by Contractor. The coverage shall contain no special limitations on the scope of protection afforded to SDSTA, its officers, directors, or employees. All additional insured coverage must include ongoing and completed operations.

- c. Contractor's insurance coverage shall be primary insurance as respects SDSTA and its officers, directors, and employees. Any insurance or self-insurance maintained by SDSTA, its officers, directors, and employees shall not contribute with Contractor's insurance.
- d. Coverage shall provide that any failure to comply with reporting provisions of the Contractor's policies by the Contractor shall not affect coverage provided SDSTA, its officers, directors, and employees.
- e. Coverage shall state the Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- f. Coverage shall contain a waiver of subrogation in favor of SDSTA and its officers, directors, and employees; Fermi Research Alliance, LLC, its officers, directors, and employees; the United States Department of Energy and officers, agents and employees; Barrick Gold Corporation, Homestake Mining Company of California, and the affiliates of Barrick and Homestake, and each of its and their officers, directors, employees and agents, and any visitor, contractor or consultant Homestake or Barrick invite onto, allows or authorize to use SURF.
- g. Coverage shall include a provision or endorsement that the insurer will not raise any coverage defense based on the statutory immunity of the State of South Dakota, the SDSTA, or the Homestake Indemnified Parties.
- h. Any property damage coverage maintained by Contractor or by any lessor of equipment utilized by Contractor shall include a waiver of subrogation as against SDSTA and its officers, agents, and employees; Fermi Research Alliance, LLC, and its officers, agents, employees; University of Chicago and its officers, agents, and employees; Universities Research Association, LLC, and its officers, agents, and employees; the United States Department of Energy and its officers, agents, and employees; Barrick Gold Corporation, Homestake Mining Company of California, and the affiliates of Barrick and Homestake, and each of its and their officers, directors, employees, and agents and any visitor, contractor or consultant Homestake or Barrick invites onto, allows or authorizes to use SURF.

ii. Worker's Compensation and Employers' Liability

- a. Coverage shall contain a waiver of subrogation in favor of the SDSTA and its officers, directors, and employees; Fermi Research Alliance, LLC its officers, directors, and employees; the United States Department of Energy and officers, agents, and employees; Barrick Gold Corporation, Homestake Mining Company of California, and the affiliates of Barrick and Homestake, and each of its and their officers, directors, employees and agents and any visitor, contractor or consultant Homestake or Barrick invites onto or authorizes to use SURF.

iii. All Coverages

- a. Each insurance policy required by the agreement shall be endorsed to state that coverage shall not be suspended, voided, cancelled, or reduced in limits except after thirty (30) days' prior written notice has been given to the SDSTA, except that ten (10) days' prior written notice shall apply in the event of cancellation for nonpayment of premium.
- b. All self-insurance, self-insured retentions, and deductibles must be declared and approved by the SDSTA as provided in the Risk Transfer Protocol manual.
- c. Evidence of Insurance – Prior to commencement of work, the Contractor or Project Participant shall furnish the SDSTA with certificates or other proof evidencing compliance with the insurance requirements above. To the fullest extent possible consistent with applicable privacy obligations, the Contractor agrees to provide complete, certified copies of all required insurance policies if requested by the SDSTA.
- d. Acceptability of Insurers – Insurance shall be placed with reputable insurers acceptable to the SDSTA with at least an A.M. Best rating of A, VII or higher.

C. Subcontractors and Consultants

- i. Contractor shall disclose the identity of, and work to be performed by, each subcontractor and consultant. Before allowing any such subcontractor or consultant to begin work, Contractor must provide proof of insurance for each such subcontractor or consultant as required by SDSTA; such requirements shall be consistent with SDSTA's Risk Transfer Protocols.
- ii. Without limiting the generality of the foregoing subsection C(i), Contractor has disclosed it will enter into a subcontract with Electric Power Door for the procurement and installation of blast doors. The insurance requirements set out above, including but not limited to the limits of liability set out above, shall also apply to said subcontractor.

EXHIBIT B

ENVIRONMENT, SAFETY, AND HEALTH REQUIREMENTS

1.1 CONTRACTOR'S RESPONSIBILITY FOR PROJECT SAFETY AND ENVIRONMENTAL PROTECTION

- 1.1.1 The Contractor recognizes the importance of performing the work in a safe and responsible manner to prevent damage, injury, or loss to individuals, the environment, and the work itself, including materials and equipment incorporated into the work or stored on-site or off-site. Contractor assumes responsibility for implementing and monitoring all Environment, Safety and Health (ESH) precautions and programs related to the performance of the work.
- 1.1.2 The Contractor and subcontractors shall comply with all legal and SDSTA-specific reporting requirements relating to ESH set forth in the contract documents. The Contractor will verbally notify of any injury, loss, damage, or accident arising from the work to Project Manager and to the SDSTA ESH Safety Representative (ESH Safety Rep), to the extent mandated by legal requirements, to all government or quasi-government authorities having jurisdiction over safety-related matters involving the project or the work. All persons injured while working at SURF will be immediately evaluated, and treated as necessary, by a medical professional before returning to work. Contractor and its subcontractors will immediately report to the Project Manager all spills of a regulated substance of one gallon or greater, and all other significant impacts to the environment (soil, water, air) in performance of the work. Contractor will also immediately notify the Project Manager of any failure to comply with state and federal environmental laws, rules, and regulations.
- 1.1.3 The Contractor's responsibility for ESH under this specification is not intended in any way to relieve subcontractors and sub-subcontractors of their own contractual and legal obligations and responsibilities.
- 1.1.4 The Contractor is responsible for screening all subcontractors with respect to safety and to adopt a safety selection process consistent with requirements defined herein. In addition, Contractor is responsible for flowing down all ESH requirements of the Contract to its subcontractors, including monitoring and enforcing compliance.

1.2 ESH REQUIREMENTS AND COORDINATION

- 1.2.1 Safety and protection of the environment are of the utmost concern on this contract. Safety in this context refers to the health and safety of people and the protection of the environment. Nothing contained herein relieves the Contractor from complying with all applicable standards and regulations found in 29 CFR Part 1926 (OSHA construction standard), 40 CFR (Federal environmental regulations, and Part 74 of the Administrative Rules of South Dakota (State environmental regulations), where applicable. Site specific safety requirements are defined in the SURF ESH Manual located at:

<https://www.sanfordlab.org/esh>. Mine Safety and Health Administration (MSHA) compliance may be acceptable, where applicable.

- 1.2.2 The Contractor will address the safety requirements defined herein and in the SDSTA ESH Manual. Contractor costs associated with the implementation of the requirements will be borne by the Contractor. Safety deficiencies discovered after the award will be remedied at no cost to SDSTA.
- 1.2.3 The Contractor shall have a designated Safety Representative (SR), approved by SDSTA, present on the Project at all times when work is physically being performed. The SR may have other minor duties, but the position's primary role is to oversee safety of the worksite and work being performed by the Contractor, as well as that of its subcontractors. [The By-Pass Drift excavation is intended to be staffed by two full time SR's combined with third/fourth qualified SR designees to service the various rotating shifts.](#) If shift work will be utilized, the Contractor must have a SR or SR designee for each shift. In the case of shift work, the Contractor will designate one SR as the lead for the project. The training requirements for the second SR are the same as the lead and are as follows:
 - The SR shall have underground safety experience and training (e.g., MSHA part 48) when applicable.
 - The SR shall be certified in CPR, AED, and First Aid.
 - The SR is responsible for administering the Contractor's ESH program.
 - The SR will escort the ESH Safety Rep on a monthly ESH site visit.
 - The SR will provide training to all employees working on their behalf in regard to oil pollution prevention, solid and hazardous waste management, and storm water management, if applicable.
 - The Contractor will supply a weekly ESH report to the ESH Safety Rep, detailing any ESH related items.
- 1.2.4 The Contractor shall have at least one individual certified in CPR, AED, and First Aid onsite at all times.
- 1.2.5 The Contractor is responsible for identifying the need for Qualified and/or Competent Persons for specific tasks as defined in 29 CFR 1926.
- 1.2.6 The Contractor must have a documented Site-Specific Environment, Safety and Health Program/Plan in place and accepted by SDSTA before work will be authorized to start. This program must be consistent with the requirements in the SDSTA ESH Manual. The program will be based on the hazards inherent to the Means and Methods adopted by the Contractor and its associated work environment. The scope of work will dictate the required program elements for this contract. Program elements may include those listed on the ESH Manual of the SURF website at <https://www.sanfordlab.org/esh>.
 - If the Contractor chooses to adopt one or more specific elements of the SDSTA ESH program, it must adopt that element in its entirety.

- 1.2.7 The Contractor is expected to follow a work planning and controls process that is aligned with the SDSTA. (See SURF website ESH Manual at <https://www.sanfordlab.org/esh>.) The work planning and controls process must be conducted and documented prior to the start of work in the form of a Job Hazards Analysis (JHA). A JHA, developed by the SR, approved by the Project Manager and ESH Safety Rep. The JHA will be reviewed with the individual(s) expected to perform the work prior to work starting on a specified task. The SR is expected to review all JHAs. Copies of JHA(s) must be present at the location where work is being performed and accessible to the individuals performing the work and to SDSTA representatives.
- 1.2.8 The Contractor will conduct a daily crew work planning meeting (tailgate/toolbox talk), including, when necessary, subcontractor employees, prior to the beginning of each shift. This talk will include the plan of work for the day, a review of hazards and potential regulatory issues, inspection/removal of loose puncture hazards as part of a general daily cleanup requirement of the work area, and the review of applicable JHAs. These documented talks will be submitted to the Project Manager or uploaded to a designated electronic database at the end of each day, or by the end of the work week.
- 1.2.9 The Contractor is responsible for assuring that all Contractor employee safety training is completed in compliance with SDSTA guidelines, standards, and associated regulations. The following training is required for all Contractor personnel before they start work:
- Sanford Underground Research Facility (SURF) Surface and/or Underground Orientation Training, if onsite for less than 40 hours in a 12-month period
 - Cultural Awareness video
 - Any specific equipment training (e.g.: crane operator)
 - Site specific training for environmental compliance (e.g.: spill prevention, Hazmat, storm water, etc.)
- For contractor personnel working on-site more than 40 hours in a 12-month period, the following training is required:
- General Safety Basic Training (Surface and/or Underground)
- 1.2.10 The Contractor must have an individual trained and qualified as a SURF Guide for each area that the Contractor will be working. The Guide must be always onsite with the workers. Refer to ESH-(1000-S)-73189 Facility Access Standard or the SURF Training Department for Contractor Guide training.
- 1.2.11 The Contractor shall provide all common Personal Protective Equipment (PPE) required for the work (hard hats, safety toe boots, safety glasses with side shields, hi-visibility clothing and required fall protection equipment including suspension trauma straps, and full body harness (ANSI A10.14 approved). All contractor personnel shall follow the ESH-(7000-S)-71493 PPE Standard and supporting documents.
- Unique PPE required for aerial lift equipment:
 - Anyone working from an aerial lift must wear a personal fall restraint system or SRL following manufacturer's recommendations.
 - Fall protection must be attached to the manufacturer's designated anchor point.

- Unique PPE required for any underground work at a minimum includes:
 - W65 Self Rescuers (must be maintained according to MSHA requirements) (always required when working underground)
 - Gas Tester(s) (M40M or equivalent)
 - Cap lamps
- 1.2.12 Smoking, use of tobacco products, including vapor, alcohol, controlled substances, or weapons are not allowed within the boundaries of SURF. All property owned and operated by the SDSTA is designated as tobacco and vapor-free. This applies to all areas of the surface and the underground. The Contractor shall manage and maintain a drug and alcohol policy that aligns with that of SDSTA written policy and procedures. The ESH department review of this document may be required.
- 1.2.13 If SDSTA perceives the Contractor has created or is exposed to an imminent danger, unacceptable risk, or a non-compliance situation, SDSTA will stop work until safe conditions are re-established. Such work stoppages will be at the expense of the Contractor and will not add time to the completion date of the contract. All personnel have the right and responsibility to authorize a stop work onsite whenever encountering an unsafe condition or act. Refer to the ESH-(2000-S)-202124 Stop Work Standard.
- 1.2.14 In the event of an incident, Contractor will notify the Project Manager and/or ESH Safety Rep immediately and never later than the end of shift on the day of incident. Contractor shall complete the ESH-(3000-F)-173324 First Report of Incident and Investigation form and submit to the Project Manager or ESH Safety Rep. Contractor shall conduct an incident investigation in accordance with the SDSTA Standard. The investigation will include preparing a written report summarizing the results of the investigation, corrective actions taken to prevent a reoccurrence, and any lessons learned. SDSTA may at its discretion participate in and facilitate the incident investigation. Time and expense incurred by Contractor performing an incident investigation will be at the Contractor's expense.
- 1.2.15 The Contractor may, with SDSTA written permission, operate SURF-owned equipment. The Incidental Operator must first meet SDSTA requirements for the operation of said equipment. The Contractor shall regularly inspect, test, and calibrate as necessary all equipment, machinery, tools, or other items furnished by SDSTA that are employed in Contractor's work. Contractor shall take reasonable precautions to avoid damage to facility structures and utilities. If apparent defects are found in SDSTA-provided materials or equipment, defective equipment shall be taken out of service and Contractor shall promptly notify the Project Manager of such defect(s) in writing. Contractor provided equipment shall be inspected and maintained prior to arriving on-site and before each use. Failure of Contractor-provided equipment shall not be entitled to any compensation for downtime or delays or schedule extensions.
- 1.2.16 When working in the headframes, the Contractor will maintain six-foot distance away from an open shaft hole when the cage gate is open or have 100% tied-off (Fall Arrest) protection.

- 1.2.17 The Contractor acknowledges that periodic evacuation drills and exercises are required by SDSTA to validate the adequacy and effectiveness of the ESH-(6000-S)-185207 Emergency Management Standard. Contractor also recognizes that such drills and exercises enhance its employees' understanding of Emergency Management Standard. Contractor agrees to participate in quarterly evacuation drills, which may or may not be scheduled in advance, during the term of this contract. It is understood that Contractor will not be entitled to any additional compensation for participating in these evacuation drills or exercises.
- 1.2.18 The Contractor agrees to assess whether Contractor's employees have the physical, mental, and emotional capacity to perform assigned tasks competently and in a manner that does not unreasonably threaten safety, health, or property, including participation in emergency procedures applicable to Contractor's work location. The ESH-(2000-S)-15209 Fatigue Management Standard regulates the impacts of fatigue for safety, health, and productivity onsite. Refer to the SURF website ESH Manual at <https://www.sanfordlab.org/esh> for further information.
- 1.2.19 The Contractor shall follow use of ladders and shall meet the requirements of OSHA 1926.1053 (Subpart X) and OSHA 1910.23 (Subpart D). Prior to using a ladder, the following shall be considered:
- Alternative methods, such as platform/podium ladder, scaffolding, scissor lift, or aerial lift.
 - Fall protection is required when working from a standard ladder at a height greater than four feet.
 - Fall protection is required when working from the platform of a three-sided podium ladder at a height greater than six feet.
 - Additional fall protection is not required when working from a four-sided podium ladder.
- Refer to the SURF website ESH Manual at <https://www.sanfordlab.org/esh> for further information on the ESH-(7000-S)-73415 Fall Protection and Prevention Standard.
- 1.2.20 The Contractor shall manage all waste, both solid and hazardous, as well as all obsolete, expired, or unused materials procured by the Contractor, including the cost of disposal. The Contractor shall manage and dispose of all wastes generated in compliance with all applicable state and federal laws and regulations. The Contractor shall minimize, to the extent practical, the generation and accumulation of waste during the lifespan of the project. Waste shall not be allowed to accumulate to the point of becoming a threat to the environment (air, land, water) and must not be stored on the ground for longer than a single work shift. Where large amounts of waste are anticipated, a roll off bin should be used. When a roll off bin is not used, wastes must be removed from the work site on a regular basis.

All clean-up and disposal costs associated with Contractor spills or equipment leaks of environmentally regulated substances in the performance of their work are the responsibility of the Contractor. Spills and leaks must be cleaned up immediately, and leaks must be repaired to prevent further environmental contamination.

If the Contractor will be disturbing one or more acres, it is the responsibility of the Contractor to obtain a South Dakota Stormwater Construction Permit and to comply with that permit, including the installation and maintenance of stormwater pollution controls. Stormwater flowing off the work site must be clean, with no visible sheen or solids. Any existing stormwater pollution controls that are altered during Contractor activities must be returned to full operating condition as soon as possible.

Work that results in the storage of petroleum products (55 gallons or greater in a single container) or the installation of oil-filled operational equipment with a volume of 55 gallons or greater must be reported to the Environmental Department, and secondary containment must be installed.

Visible air emissions occurring from roads, stockpiles, conveyors, etc. used during Contractor work must be controlled by the Contractor.

- 1.2.21 All chemicals to be used at SURF must be pre-approved by SDSTA and Safety Data Sheets (SDS) must be maintained by the Contractor and be readily available to workers on site.
- 1.2.22 Flammables (defined in 30 CFR Part §57.4460 Storage of flammable liquids underground) are not allowed underground. Flammables used on the surface are to be stored in engineered flammable cabinets or in containers with a minimum one-hour fire resistance.
- 1.2.23 Combustibles in the underground work areas shall be managed as per 30 CFR Part 57.4104 -57.4531, as applicable.
- 1.2.24 Tier 4 engines are required at SURF for underground use. Lower Tier 3 equipment may be allowed underground but only with SDSTA permission. All underground diesel equipment must be approved by SDSTA prior to usage.
- 1.2.25 SDSTA reserves the right to restrict or deny access of any Contractor employee to the work location.
- 1.2.26 The Contractor shall report the hours worked on site by Contractor's employees on a monthly basis to the Project Manager named in the contract. Hours shall be emailed to the Project Manager no later than the 3rd day of the month for hours worked the previous month.

Refer to the SURF website, ESH Manual at <https://www.sanfordlab.org/esh>, for further information on all standards.

EXHIBIT C

SCOPE OF WORK

The contractor will provide the project baseline cost estimate, execution plan, the labor, materials, tools, equipment, and project management to excavate the Phase A by-pass drift and related support facilities, inclusive of plans and means to dispose of muck generated by the Phase A excavations into available underground drifts previously identified/defined in the final approved design for the project.

EXHIBIT D

CONTRACTOR'S PROPOSAL

EXHIBIT E
CERTIFICATE OF EXEMPTION

EXHIBITS F & G

**ACKNOWLEDGEMENT OF RISK
AND
RELEASE, AGREEMENT NOT TO SUE WAIVER**

(Attached for reference only and to be signed in the presence of SDSTA
personnel at the time of entering the underground property)



Name: _____

Affiliation: _____

Date: _____

**South Dakota Science and Technology Authority
Sanford Underground Research Facility (SURF)**

ACKNOWLEDGEMENT OF RISK

In consideration for being permitted to enter upon the property of the South Dakota Science and Technology Authority (referred to in this document as the “Authority”) located in and near Lead, South Dakota, including both the surface property and the underground workings and facilities owned by the Authority (referred to in this document as the “Authority’s Surface Property” or the “Authority’s Underground Property” and collectively, the “Authority’s Property”), which permission was granted at my request, I do hereby freely and knowingly state, declare, and agree as follows:

(Initial) _____ 1. I have independently investigated the risks to my health, life, and safety and the risks of damage to my property resulting from my entry, presence, and activities upon and in the Authority’s Property, including both the surface property and the underground property. Based upon that investigation, I have developed an informed understanding of the risks to me and my property resulting from my entry, presence, and activities upon either or both of the Authority’s Surface Property and the Authority’s Underground Property.

(Initial) _____ 2. Without limiting the generality of paragraph 1 above, I am aware that the Authority’s Surface Property is a former commercial mine which includes and contains heavy machinery, high-voltage electrical connections and conduits, open catwalks and other elevated walkways, apparent and hidden hazards of tripping or falling, industrial and mining chemicals and other agents, naturally-occurring minerals, naturally-occurring land and environmental conditions that are potentially hazardous, fully or partially reclaimed mine facilities (including, but not limited to, open pits, underground mine workings, process plants and waste rock areas), possible air-borne contaminants, high-pressure lines and vessels, falling or low-hanging items that present a risk of head injury and numerous other serious apparent, and unapparent risks to my health, life and safety and risks of damage to my property.

(Initial) _____ 3. Without limiting the generality of paragraph number 1 above, I am further aware that in addition to the risks associated with the Authority’s Surface Property described in paragraph 2 above, the Authority’s Underground Property is also a former commercial mine and it also includes and contains heavy machinery, high-voltage electrical connections, and conduits, open catwalks and other elevated walkways, underground mine workings, apparent and hidden hazards of tripping or falling, industrial and mining chemicals and agents, naturally-occurring minerals, naturally-occurring geologic and environmental conditions that are potentially

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**South Dakota Science and Technology Authority
Sanford Underground Research Facility (SURF)**

ACKNOWLEDGEMENT OF RISK

hazardous, possible air-borne contaminants, high-pressure lines and vessels and falling or low-hanging rock or other items that present a risk of head injury. I am further aware that going underground involves a substantial risk of underground fires, underground floods, roof falls and collapse, failure of lifts, hoists and ventilation equipment, suffocation, being trapped, being crushed to death and numerous other serious apparent and unapparent risks to my health, life and safety, and risks of damage to my property.

(Initial) _____ 4. I acknowledge I have the time, knowledge, and experience to make an intelligent choice concerning whether to assume the risks associated with my entry, and activities upon or in the Authority's Surface Property, the Authority's Underground Property, or both.

(Initial) _____ 5. I do hereby voluntarily, freely, and unconditionally assume any and all risk of damage to my health, personal injury, death, and damage to my property in any way associated with my entry, presence, or activities upon, in, or around Authority's Surface Property and the Authority's Underground Property.

(Initial) _____ 6. I acknowledge that I have been given a safety briefing or safety training, and I agree to abide by guidelines explained during that briefing or training.

(Initial) _____ 7. In the interest of safety and security, I agree that any person or property may be subject to inspection by Authority personnel at any time I am on Authority property.

(Initial) _____ 8. I acknowledge that my failure to comply with any applicable law, regulation, rule, or policy (including the guidelines explained during my safety briefing or safety training) is grounds for the Authority to immediately revoke my permission to enter Authority's Property, to order me to immediately leave the Authority's Property, and to deny me future access to the Authority's Property. I agree to immediately comply with all directions given by the Authority to me pursuant to this paragraph.

(Initial) _____ 9. I have been provided and have read and signed (or will sign), a document entitled "RELEASE, AGREEMENT NOT TO SUE AND WAIVER."

(Initial) _____ 10. I acknowledge that I have provided valid personal identification to Authority Personnel.



**South Dakota Science and Technology Authority
Sanford Underground Research Facility (SURF)**

ACKNOWLEDGEMENT OF RISK

I HAVE READ THIS ACKNOWLEDGEMENT OF RISK, CONSISTING OF THREE PAGES AND TEN NUMBERED PARAGRAPHS. I FULLY UNDERSTAND ITS TERMS AND THE RISKS DESCRIBED IN IT. I HAVE SIGNED IT FREELY AND VOLUNTARILY WITHOUT INDUCEMENT, ASSURANCE, OR GUARANTEE BEING MADE TO ME.

DATED this _____ day of _____, 20_____.

[PRINT NAME]

I HAVE READ THIS ACKNOWLEDGEMENT

[SIGNATURE]

I am requesting permission to enter the Authority's property as an officer, agent, employee, consultant, scientific investigator, student, visitor, and I am otherwise affiliated with _____.

FOR OFFICE USE ONLY:

Witnessed by: _____ Logged by: _____
[Print Name]

Witnessed by: _____ Date Logged: _____
[Signature]

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Name: _____

**South Dakota Science and Technology Authority
Sanford Underground Research Facility (SURF)**

RELEASE, AGREEMENT NOT TO SUE AND WAIVER

In consideration for being permitted to enter upon the property of the South Dakota Science and Technology Authority (referred to in this documents as the "Authority") located in and near Lead, South Dakota, including both the surface property and the underground workings and facilities owned by the Authority (referred to in this document as the "Authority's Surface Property" or the "Authority's Underground Property" and collectively, the "Authority's Property"), which permission was granted at my request, I do hereby freely and knowingly state, declare and agree as follows:

(Initial) ____ 1. I have today been provided and have read and signed a form entitled "ACKNOWLEDGEMENT OF RISK," which describes in general terms the numerous apparent and unapparent risks of serious personal injury, death, or damage to my property, which exists on and in both the Authority's Surface Property, and the Authority's Underground Property.

(Initial) ____ 2. Being fully aware of the risks as described in the accompanying "ACKNOWLEDGEMENT OF RISK," I do hereby voluntarily, freely, and unconditionally release and agree not to sue the following persons and entities for any damage to my health, personal injury, death and/or damage to my property in any way associated with my entry, presence or activities upon, in, or around the Authority's Surface Property and/or the Authority's Underground Property, and I further hereby waive any such claims I may have against the following persons and entities. This release, agreement not to sue and waiver is given in favor of the following persons and entities:

(Initial) ____ (a). The State of South Dakota and its elected representatives and officers, unelected officers, employees, agents, consultants and representatives; and

(Initial) ____ (b). The South Dakota Science and Technology Authority and its officers, directors, employees, agents, consultants and representatives, and any visitor, contractor, consultant, or any other person (natural or otherwise) that the South Dakota Science and Technology Authority directs to, invites or permits upon, or authorizes to use the Authority's Property and its or their agents, representatives, consultants, lessees, licensees, and invitees; and

(Initial) ____ (c). Barrick Gold Corporation; any person, partnership, joint venture, corporation, or any other form of enterprise which directly or indirectly controls, is controlled by or is under common control with Barrick Gold Corporation; any officer, director, employee, agent or consultant of Barrick Gold Corporation; and any visitor, contractor, consultant, or any other person (natural or otherwise) that Barrick Gold Corporation directs to, invites, or permits upon or

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**South Dakota Science and Technology Authority
Sanford Underground Research Facility (SURF)**

RELEASE, AGREEMENT NOT TO SUE AND WAIVER

authorizes to use the Authority's Property and its or their agents, representatives, consultants, lessees, licensees, and invitees; and

(Initial) ____ (d). Homestake Mining Company of California, any person, partnership, joint venture, corporation, or any other form of enterprise which directly or indirectly controls, is controlled by, or is under common control with Homestake Mining Company of California; any officer, director, employee, agent, or consultant of Homestake Mining Company of California; and any visitor, contractor, consultant, or any other person (natural or otherwise) that Homestake Mining Company of California directs to, invites, or permits upon, or authorizes to use the Authority's Property and its or their agents, representatives, consultants, lessees, licensees, and invitees; and

(Initial) ____ (e). Mr. T. Denny Sanford or any other person or entity providing funding or other support for the construction, operation, and maintenance of the Authority, the Authority's Property, and/or the Sanford Underground Research Facility.

(Initial) ____ 3. I understand that this document does not act to release, discharge, or waive any rights I may have to compensation or the payment of medical expenses under applicable workers compensation law.

(Initial) ____ 4. The release, agreement not to sue and waiver contained in this document includes any and all claims I or my heirs, representatives, successors, or assignees (including, but not limited to, my family) may have as a result of any damage to my health, injury to me, my death, or damage to my property, including incidental and consequential damages and loss of income, support, and companionship.

(Initial) ____ 5. I agree that if a court or other tribunal with jurisdiction rules that some portion of this document is for any reason unenforceable, the remaining portions of this document shall remain valid and enforceable.

(Initial) ____ 6. The release and waiver contained in this document and my agreement not to sue the parties named above is and will be binding on me and my heirs, representative, successors, and assignees (including, but not limited to, my spouse and other family).

(Initial) ____ 7. I acknowledge that I have provided valid personal identification to Authority Personnel.

Document-71462
Revised: (08/01/17)
Supersedes: (12/18/12)

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**South Dakota Science and Technology Authority
Sanford Underground Research Facility (SURF)**

RELEASE, AGREEMENT NOT TO SUE AND WAIVER

I HAVE READ THIS RELEASE, AGREEMENT NOT TO SUE AND WAIVER, CONSISTING OF THREE PAGES AND SEVEN NUMBERED PARAGRAPHS. I FULLY UNDERSTAND ITS TERMS, UNDERSTAND THAT I HAVE GIVEN UP SUBSTANTIAL RIGHTS BY SIGNING IT, AND HAVE SIGNED IT FREELY AND VOLUNTARILY WITHOUT ANY INDUCEMENT, ASSURANCE, OR GUARANTEE BEING MADE TO ME. I INTEND MY SIGNATURE TO BE A COMPLETE AND UNCONDITIONAL RELEASE OF ALL LIABILITY, AGREEMENT NOT TO SUE AND WAIVER OF LIABILITY TO THE GREATEST EXTENT ALLOWED BY LAW.

DATED this _____ day of _____, 20_____.

[PRINT NAME]

I HAVE READ THIS RELEASE, AGREEMENT NOT TO SUE AND WAIVER

[SIGNATURE]

I am requesting permission to enter the Authority's Property as an officer, agent, employee, consultant, scientific investigator, student, visitor, and I am otherwise affiliated with _____.

FOR OFFICE USE ONLY:

Witnessed by: _____ Logged by: _____
[Print Name]

Witnessed by: _____ Date Logged: _____
[Signature]

Document-71462
Revised: (08/01/17)
Supersedes: (12/18/12)

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Financial Report—Director Mike Headley and CFO Terry Miller

The Financial Report includes the following:

- 8A. Amended FY2024 budget, *attached. (see suggested motion below)*
- 8B. Financial Summaries for October 2023, *attached. (see suggested motion below)*

Recommended Action:

- 8A. *Motion to approve the SDSTA amended FY2024 budget, as presented.*
- 8B. *Motion to accept financial report as presented.*

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FY2024 Budget Amendment

- 4850L Lab Expansion
 - Thyssen Mining Inc. Design - \$670,508
 - Indirect - \$280,900
 - SDSTA labor - \$218,619
 - SDSTA nonlabor - \$232,000
 - Includes: CGL Insurance - \$54,618
 - Thyssen Mining Inc. Construction - \$11,597,973
 - Long lead procurement purchase orders - \$1,249,112
 - Available for construction \$10,348,861
 - Total budget - \$13,000,000
 - Previous budget allocation - \$2,800,000
 - **Budget authority request - \$10,200,000** (4850L expansion funds)

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DIVISION: ALL

BALANCE SHEET

ASSETS

	AS OF 10/31/23
CURRENT ASSETS	
First Interstate Checking	\$ 4,488,663.35

Total in Local Checking	4,488,663.35
SD Treas: Indemnification	7,500,000.00
SD Treas: Mine Closure	1,567,504.94
SD Treas: Operating	1,643,238.62
SD Treas: SB35 Appropriation	12,209,159.91
SD Treas: Experiments	589,786.61

Total with SD Treasurer	23,509,690.08
Billed A/R	1,140,888.12
Unbilled A/R	1,064,845.05
Other A/R	455,779.23
Inventory - Supplies	3,273,639.33
Inventory - Warehouse	512,122.02
Other Current Assets	1,111,852.00

Total Current Assets	35,557,479.18
FIXED ASSETS	
Land, Underground & Other	12,743,473.13
Bldgs & Infrastructure	19,145,674.12
Improvements	62,806,546.32
Work in Progress	6,192,248.18
Computer Equipment	366,435.18
Equipment & Fixtures	10,262,978.28
DOE Property Transfer	9,061,615.87
Accum Depr & Amort	(23,992,651.69)
DOE Prop. Accum Deprec.	(1,100,650.01)

Total Fixed Assets	95,485,669.38
OTHER ASSETS	
Asset Retirement Obligation Deferred Outflows	1,129,637.92
Asset Retirement Obligation Accumulated Depr.	(37,654.60)
Pension Deferred Outflows	5,823,104.49
Xenon Purchased	8,687,833.46

Total Other Assets	15,602,921.27
	=====
TOTAL ASSETS	\$ 146,646,069.83
	=====

DIVISION: ALL

BALANCE SHEET

LIABILITIES & EQUITY

		AS OF 10/31/23
		<hr/>
CURRENT LIABILITIES		
Accounts Payable	\$	1,338,473.32
Other Payables		5,887.12
		<hr/>
Total Accounts Payable		1,344,360.44
Accrued Payroll Liab		2,299,890.52
		<hr/>
Total Current Liabilities		3,644,250.96
OTHER LIABILITIES		
LT Xenon Notes Payable		3,121,190.01
Pension Deferred Inflows		3,447,916.22
Asset Retirement Obligation		1,196,884.99
		<hr/>
Total Other Liabilities		7,765,991.22
EQUITY		
Restricted: Indemnification		7,500,000.00
Restricted: SB35 Appropriation		12,209,159.91
Restricted: Mine Closure		1,567,504.94
Restricted: Pension		2,375,188.27
Restricted: Experiment. Int.		589,786.61
		<hr/>
Total Restricted Funds		24,241,639.73
Investment in Gen FA		95,485,669.38
Unrestricted Funds		15,508,518.54
		<hr/>
Total Equity		135,235,827.65
		<hr/>
TOTAL LIABILITIES & EQUITY	\$	146,646,069.83
		<hr/>

ALL

STATEMENT OF INCOME

FOR THE PERIOD ENDING 10/31/2023

	YR-TO-DATE
	<hr/>
REVENUE	
DOE Subcontracts	\$ 13,199,426.20
Checking Interest	2,920.75
Interest Income	107,052.33

TOTAL REVENUE	13,309,399.28
DIRECT COSTS	
Direct Labor	3,224,108.58
Board of Directors	3,440.70
Capital Outlay >\$5K	1,155,180.01
Contractual Svcs	3,444,509.55
Inventory	96,994.35
Supplies	600,874.99
Travel - Domestic	83,069.53
Travel - Foreign	12,419.28
Utilities	571,639.91
Other Direct Costs	39,787.78
Unallow/Unbill Costs	127,019.91

TOTAL DIRECT COSTS	9,359,044.59
INDIRECT COSTS	
Fringe Benefits	2,707,914.60
Overhead	3,658,221.56

TOTAL INDIRECT COSTS	6,366,136.16

GROSS PROFIT/LOSS ()FROM OPERATIONS	(2,415,781.47)

OTHER INCOME	
Water Treatment	116,545.72
Miscellaneous Income	16,895.71
Other Operating Income	94,244.25

TOTAL OTHER INCOME	227,685.68
OTHER EXPENSES	
Misc. Expenses & Donations	(1,751,756.84)
Loss (Gain) on Sale of FA	15,432.62
Other Unallowable Expense	192,029.38
Reclass Incr Net Assets	(874,151.84)

TOTAL OTHER EXPENSES	(2,418,446.68)
	=====
NET INCOME/LOSS ()	\$ 230,350.89
	=====

DIVISION: ALL

COMPARATIVE BALANCE SHEET

ASSETS

	AS OF 10/31/23	AS OF 10/31/22	\$ CHANGE	% CHANGE
<hr/>				
CURRENT ASSETS				
First Interstate Checking	\$ 4,488,663.35	\$ 4,404,916.06	\$ 83,747.29	1.90%
First Interstate Other	-	-	-	0.00%
<hr/>				
Total in Local Checking	4,488,663.35	4,404,916.06	83,747.29	1.90%
SD Treas: Indemnification	7,500,000.00	7,500,000.00	-	0.00%
SD Treas: Mine Closure	1,567,504.94	1,533,566.14	33,938.80	2.21%
SD Treas: Operating	1,643,238.62	1,386,598.52	256,640.10	18.51%
SD Treas: SB35 Appropriation	12,209,159.91	-	12,209,159.91	100.00%
SD Treas: Experiments	589,786.61	688,574.72	(98,788.11)	-14.35%
<hr/>				
Total with SD Treasurer	23,509,690.08	11,108,739.38	12,400,950.70	111.63%
Billed A/R	1,140,888.12	2,192,734.90	(1,051,846.78)	-47.97%
Unbilled A/R	1,064,845.05	913,285.18	151,559.87	16.60%
Other A/R	455,779.23	317,158.46	138,620.77	43.71%
Inventory - Supplies	3,273,639.33	3,237,428.11	36,211.22	1.12%
Inventory - Warehouse	512,122.02	403,205.27	108,916.75	27.01%
Other Current Assets	1,111,852.00	738,012.37	373,839.63	50.65%
<hr/>				
Total Current Assets	35,557,479.18	23,315,479.73	12,241,999.45	52.51%
<hr/>				
FIXED ASSETS				
Land, Underground & Other	12,743,473.13	12,743,473.13	-	0.00%
Bldgs & Infrastructure	19,145,674.12	19,321,800.42	(176,126.30)	-0.91%
Improvements	62,806,546.32	62,813,135.62	(6,589.30)	-0.01%
Work In Progress	6,192,248.18	4,079,796.90	2,112,451.28	51.78%
Computer Equipment	366,435.18	381,499.81	(15,064.63)	-3.95%
Equipment & Fixtures	10,262,978.28	10,698,424.57	(435,446.29)	-4.07%
DOE Property Transfer	9,061,615.87	6,361,708.97	2,699,906.90	42.44%
Accum Depr & Amort	(23,992,651.69)	(22,140,913.42)	(1,851,738.27)	8.36%
DOE Prop. Accum Deprec.	(1,100,650.01)	(640,662.10)	(459,987.91)	71.80%
<hr/>				
Total Fixed Assets	95,485,669.38	93,618,263.90	1,867,405.48	1.99%
<hr/>				
OTHER ASSETS				
Asset Retirement Obligation Deferred Outflows	1,129,637.92	1,129,637.92	-	0.00%
Asset Retirement Obligation Accumulated Depr.	(37,654.60)	-	(37,654.60)	100.00%
Pension Deferred Outflows	5,823,104.49	11,243,668.96	(5,420,564.47)	-48.21%
Xenon Purchased	8,687,833.46	8,934,350.39	(246,516.93)	-2.76%
<hr/>				
Total Other Assets	15,602,921.27	21,307,657.27	(5,704,736.00)	-26.77%
<hr/>				
TOTAL ASSETS	\$ 146,646,069.83	\$ 138,241,400.90	\$ 8,404,668.93	6.08%
<hr/>				

DIVISION: ALL

COMPARATIVE BALANCE SHEET

LIABILITIES & EQUITY

	AS OF 10/31/23	AS OF 10/31/22	\$ CHANGE	% CHANGE
CURRENT LIABILITIES				
Accounts Payable	\$ 1,338,473.32	\$ 1,023,533.75	314,939.57	30.77%
Other Payables	5,887.12	1,352.52	4,534.60	335.27%
	-----	-----	-----	-----
Total Accounts Payable	1,344,360.44	1,024,886.27	319,474.17	31.17%
Accrued Payroll Liab	2,299,890.52	2,288,020.44	11,870.08	0.52%
	-----	-----	-----	-----
Total Current Liabilities	3,644,250.96	3,312,906.71	331,344.25	10.00%
OTHER LIABILITIES				
LT Xenon Notes	3,121,190.01	6,000,000.00	(2,878,809.99)	-47.98%
Pension Deferred Inflows	3,447,916.22	9,300,127.02	(5,852,210.80)	-62.93%
Asset Retirement Obligation	1,196,884.99	1,129,637.92	67,247.07	5.95%
	-----	-----	-----	-----
Total Other Liabilities	7,765,991.22	16,429,764.94	(8,663,773.72)	-52.73%
	-----	-----	-----	-----
TOTAL LIABILITIES	11,410,242.18	19,742,671.65	(8,332,429.47)	-42.21%
EQUITY				
Restricted: Indemnificati	7,500,000.00	7,500,000.00	-	0.00%
Restricted: SB35 Appropriation	12,209,159.91	-	12,209,159.91	100.00%
Restricted: Mine Closure	1,567,504.94	1,533,566.14	33,938.80	2.21%
Restricted: Pension	2,375,188.27	1,943,541.94	431,646.33	22.21%
Restricted: Experim. Int.	589,786.61	688,574.72	(98,788.11)	-14.35%
Restricted: Foundation	-	-	-	0.00%
	-----	-----	-----	-----
Total Restricted Funds	24,241,639.73	11,665,682.80	12,575,956.93	107.80%
Investment in Gen FA	95,485,669.38	93,618,263.90	1,867,405.48	1.99%
Unrestricted Funds	15,508,518.54	13,214,782.55	2,293,735.99	17.36%
	-----	-----	-----	-----
TOTAL EQUITY	135,235,827.65	118,498,729.25	16,737,098.40	14.12%
	=====	=====	=====	=====
TOTAL LIABILITIES & EQUITY	\$ 146,646,069.83	\$ 138,241,400.90	\$ 8,404,668.93	6.08%
	=====	=====	=====	=====

COMPARATIVE STATEMENT OF INCOME

FOR THE PERIOD ENDING 10/31/23

	YEAR TO DATE	PRIOR YEAR TO DATE	\$ CHANGE	% CHANGE
REVENUE				
DOE Subcontracts	\$ 13,199,426.20	\$ 12,246,227.95	\$ 953,198.25	7.78%
Checking Interest	2,920.75	3,237.26	(316.51)	-9.78%
Interest Income	107,052.33	37,006.35	70,045.98	189.28%
	-----	-----	-----	-----
TOTAL REVENUE	13,309,399.28	12,286,471.56	1,022,927.72	8.33%
DIRECT COSTS				
Direct Labor	3,224,108.58	3,030,606.08	193,502.50	6.38%
Board of Directors	3,440.70	2,293.12	1,147.58	50.04%
Capital Outlay >\$5K	1,155,180.01	1,877,857.54	(722,677.53)	100.00%
Contractual Svcs	3,444,509.55	1,287,739.26	2,156,770.29	167.49%
Inventory	96,994.35	119,965.90	(22,971.55)	-19.15%
Supplies	600,874.99	299,706.40	301,168.59	100.49%
Travel - Domestic	83,069.53	32,077.04	50,992.49	158.97%
Travel - Foreign	12,419.28	1,385.42	11,033.86	796.43%
Utilities	571,639.91	663,124.03	(91,484.12)	-13.80%
Other Direct Costs	39,787.78	102,723.42	(62,935.64)	-61.27%
Unallow/Unbill Costs	127,019.91	166,409.10	(39,389.19)	-23.67%
	-----	-----	-----	-----
TOTAL DIRECT COSTS	9,359,044.59	7,583,887.31	1,775,157.28	23.41%
INDIRECT COSTS				
Fringe Benefits	2,707,914.60	2,226,991.72	480,922.88	21.60%
Overhead	3,658,221.56	3,594,057.24	64,164.32	1.79%
	-----	-----	-----	-----
TOTAL INDIRECT COSTS	6,366,136.16	5,821,048.96	545,087.20	9.36%
	-----	-----	-----	-----
GROSS PROFIT/LOSS ()	(2,415,781.47)	(1,118,464.71)	(1,297,316.76)	517.81%
	-----	-----	-----	-----
OTHER INCOME				
Water Treatment	116,545.72	100,304.86	16,240.86	16.19%
Miscellaneous Income	16,895.71	23,393.74	(6,498.03)	-27.78%
Other Operating Income	94,244.25	5,787.04	88,457.21	1528.54%
	-----	-----	-----	-----
TOTAL OTHER INCOME	227,685.68	129,485.64	98,200.04	75.84%
OTHER EXPENSES				
Misc. Expenses & Donations	(1,751,756.84)	(147,978.01)	(1,603,778.83)	1083.80%
Loss (Gain) on Sale of FA	15,432.62	13,772.61	1,660.01	12.05%
Other Unallowable Expense	192,029.38	129,270.10	62,759.28	48.55%
Reclass Incr Net Assets	(874,151.84)	(781,661.41)	(92,490.43)	11.83%
	-----	-----	-----	-----
TOTAL OTHER EXPENSES	(2,418,446.68)	(786,596.71)	(1,631,849.97)	207.46%
	=====	=====	=====	=====
NET INCOME/LOSS ()	\$ 230,350.89	\$ (202,382.36)	\$ 432,733.25	-213.82%
	=====	=====	=====	=====

South Dakota Science & Technology Authority
Available Resources
10/31/2023

Cash Total Checking	\$ 4,488,663
Cash With State Treasurer	<u>\$ 23,509,690</u>
Total Cash	\$ 27,998,353
Less: Restricted Funds	
Indemnification/Mine Closure	\$ (9,067,505)
SB35 Appropriation	\$ (12,209,160)
Experiments (Xenon, Interest,Infrastructure)	<u>\$ (589,787)</u>
 Total Cash Available for Infrastructure Upgrades and Authority Operations	 \$ 6,131,902
 Plus: Accounts Receivable Billed	 \$ 1,140,888
Accounts Receivable Unbilled	\$ 1,064,845
Less: Current Liabilities (Accounts Payable & Accrued Payroll)	\$ (3,644,251)
 Available Cash and Receivables	 <u><u>\$ 4,693,384</u></u>

SDSTA Operating Budget Summary FY2024

Actual vs Budget
October 2023 & YTD

	October 2023	Budget	\$ Over/Under Budget	% of Budget	Actual YTD	YTD Budget	\$ Over/Under Budget	% of Budget	% Remaining
									100%
SDSTA (Authority) Direct Charges									
Board of Directors	\$1,643	\$1,500	(\$143)	109.53%	\$3,584	\$6,000	\$2,416	59.73%	40.27%
Executive Office	\$84,882	\$99,185	\$14,303	85.58%	\$400,779	\$458,664	\$57,885	87.38%	12.62%
Science Center E & O	\$2,330	\$300	(\$2,030)	776.67%	\$93,523	\$80,800	(\$12,723)	115.75%	-15.75%
SURF Foundation	\$16,820	\$24,596	\$7,776	68.39%	\$73,483	\$112,392	\$38,909	65.38%	34.62%
Science Liaison	\$1,404	\$0	(\$1,404)	100.0%	\$2,099	\$0	(\$2,099)	NA	NA
SLHVC (Visitor Center)	\$32,976	\$45,600	\$12,624	72.32%	\$184,263	\$228,164	\$43,901	80.76%	19.24%
Subtotal	\$140,055	\$171,181	\$31,126	81.82%	\$757,731	\$886,020	\$128,289	85.52%	14.48%
Federal/State Funding - Direct Charges									
Fermi C#671265 Prof. St.Services	\$8,440	\$10,910	\$2,470	77.36%	\$28,051	\$43,640	\$15,589	64.28%	35.72%
Fermi C#685922 Op Serv Support	\$0	\$0	\$0.00	0.0%	\$0	\$0	\$0.00	0.00%	100.00%
Fermi C#674969 Ross Logist.Supp.	\$223,604	\$282,106	\$58,502	79.26%	\$1,667,473	\$1,948,173	\$280,700	85.59%	14.41%
Office of Science Coop.Agree	\$465,841	\$1,146,823	\$680,982	40.62%	\$4,750,866	\$6,226,492	\$1,475,626	76.30%	23.70%
Office of Science IIP Projects	\$1,041,466	\$1,041,466	\$0	100.0%	\$2,319,358	\$2,319,358	\$0	0.00%	0.00%
LBNL LZExp.Operat.C#7650068 & DE-SC0022857	\$49,847	\$51,343	\$1,496	97.09%	\$218,521	\$205,372	(\$13,149)	106.40%	-6.40%
MJD (Majorana) ORNL144149 & SDSM&T CT001412	\$1,582	\$2,035	\$453	77.74%	\$8,581	\$8,140	(\$441)	105.42%	-5.42%
* Kiewit/Thyssen/DakotaT.	\$1,525	\$1,525	\$0.00	100.0%	\$6,100	\$6,100	\$0.00	100.00%	0.00%
* Caterpillar Inc.	\$0	\$0	\$0.00	0.0%	\$0	\$0	\$0.00	0.00%	100.00%
RESPEC Thermal Breakout	\$0	\$83	\$83	0.0%	\$0	\$333	\$333	0.00%	100.00%
Subtotal	\$1,792,305	\$2,536,291	\$743,986	70.67%	\$8,998,950	\$10,757,608	\$1,758,658	83.65%	16.35%
Indirect Expenses									
Indirect Charges Personnel	\$431,814	\$607,330	\$175,516	71.10%	\$1,839,919	\$2,360,879	\$520,960	77.93%	22.07%
Indirect Charges Other	\$533,722	\$560,007	\$26,285	95.31%	\$2,074,000	\$2,266,111	\$192,111	91.52%	8.48%
Subtotal	\$965,536	\$1,167,337	\$201,801	82.71%	\$3,913,919	\$4,626,990	\$713,071	84.59%	15.41%
Totals	\$2,897,896	\$3,874,809	\$976,913	74.79%	\$13,670,600.00	\$16,270,618.00	\$2,600,018	84.02%	15.98%
* Private Corporations (Commercial Group)									

SURF Foundation—Ms. Michelle Kane

SURF Foundation update.

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Executive Director's Report—Mr. Mike Headley

The Executive Director's Report includes the following:

- 10A. Declarations of surplus (4)—Boilers, scrap, heater, timber and generator, *informational*.
- 10B. SDSTA quarterly update—*informational*.
- 10C. Black Hills Underground Frontier Consortium Memorandum of Understanding (MOU), *reference suggested motion below*.
- 10D. Education & Outreach update—E&O Director Ms. Nicol Reiner, *informational*.

See recommended motions below.

Recommended Action:

10C. Motion to approve the Black Hills Deep Underground Frontier Consortium MOU and to authorize the executive director and chairperson of the board, in consultation with legal counsel, to negotiate the final terms of the MOU, and to authorize the Executive Director to sign the MOU.

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

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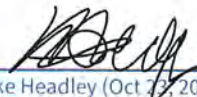
DECLARATION OF SURPLUS PROPERTY

The South Dakota Science and Technology Authority (SDSTA) owns the listed items below that have reached end-of-life. All of these items are fully depreciated, still operate, have monetary value, and will be designated as surplus for sale.

- Bosch #1 Ross Hoist Room Boiler: Asset # HT-RSS02-04
- Bosch #2 Ross Hoist Room Boiler: Asset # HT-RSS02-05
- Bosch #3 Ross Hoist Room Boiler: Asset # HT-RSS02-06
- Pressure Vessel: Asset # VE-RSS02-03

Having no further use for this property, I hereby declare the above listed items to be Surplus Property.

Dated at Lead, South Dakota this 23rd day of October 2023.



Mike Headley (Oct 23, 2023 08:59 MDT)

Mike Headley
SDSTA Executive Director

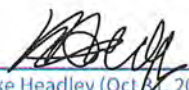
DECLARATION OF SURPLUS PROPERTY

The South Dakota Science and Technology Authority (SDSTA) owns the following equipment that has reached end-of-life. It is not cost effective to repair them nor do they have any monetary value to be sold, therefore the equipment will be scrapped.

- Battery Shop gas heater: Asset# HT-YSS09-01
- 2 TECO water pumps located in Ross Hoist Room

Having no further use for this property, I hereby declare the above listed items to be Surplus Property.

Dated at Lead, South Dakota this 30th day of October 2023.


Mike Headley (Oct 31, 2023 09:03 MDT)

Mike Headley
SDSTA Executive Director

DECLARATION OF SURPLUS PROPERTY

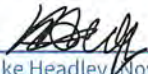
The South Dakota Science and Technology Authority (SDSTA) owns the following equipment that has reached end-of-life. It is not cost effective to repair nor does it have any monetary value to be sold, therefore the equipment will be scrapped.

- Reznor heater – Yates Ramp locker room: Asset#: HT-YSS16-01: S/N: BSE3062030427

SDSTA also possess 100 pieces of large timber in the Yates yard that is too bent/rotted for any site application and will be designated as surplus for sale.

Having no further use for this property, I hereby declare the above listed items to be Surplus Property.

Dated at Lead, South Dakota this 7th day of November 2023.


Mike Headley (Nov 7, 2023 11:13 MST)

Mike Headley
SDSTA Executive Director

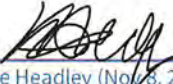
DECLARATION OF SURPLUS PROPERTY

The South Dakota Science and Technology Authority (SDSTA) owns the following equipment that has reached end-of-life. It is not cost effective to repair nor does it have any monetary value to be sold, therefore the equipment will be scrapped.

- Generac Generator: S/N: 3153793 Model: 00844-1

Having no further use for this property, I hereby declare the above listed items to be Surplus Property.

Dated at Lead, South Dakota this 8th day of November 2023.



Mike Headley (Nov 8, 2023 13:08 MST)

Mike Headley
SDSTA Executive Director

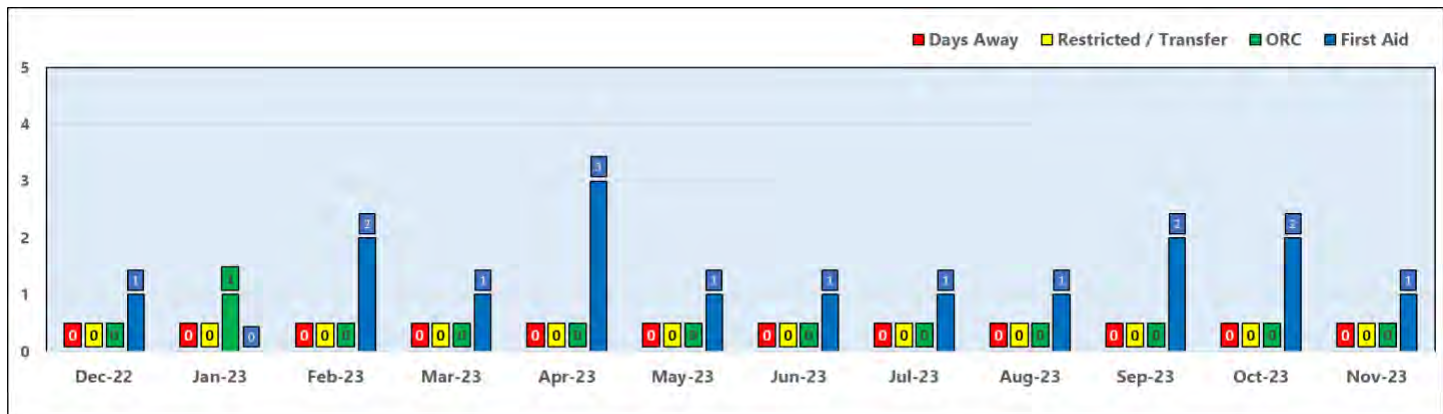
September – November 2023 Progress Report
Submitted December 6, 2023

Submitted to:
South Dakota Science and Technology Authority Board of Directors

Mike Headley
SDSTA Executive Director
Sanford Underground Research Facility Laboratory Director

Environment, Safety and Health (ESH) Status

Health and Safety Status



SDSTA Rolling 12 Months – Days Away Restricted or Transferred Rate 0.00

September 2023 thru November 2023: Recordable Cases

- No events to report.

September 2023 thru November 2023: First Aid Cases

- 9/20/23: Employee back injury
- 9/24/23: Employee finger injury
- 10/3/23: Employee slip/trip
- 10/12/23: Employee skin abrasion
- 11/3/23: Employee neck strain

ESH Support

Work Accomplishments

- Emergency Response Team (ERT) and Hoist Operator annual physicals were completed (41 employees total).
- The Occupational Health Nurse and Industrial Hygienist conducted annual audiograms for the Hearing Conservation Program.
- SDSTA collaborated with Fermilab personnel on emergency escapeway travel changes for upcoming work on the 4850L.
- The quarterly South Dakota Office of Risk Management (ORM) assessment, now augmented with a Mine Safety and Health Association (MSHA) consultant, focused on ERT training and records. The ORM representatives were unable to attend; however, a report from the MSHA consultant is forthcoming.
- ESH has completed the update to the SURF ESH manual. Each document is now on a review schedule going forward.
- ERT hosted the 82nd CST unit from the South Dakota National Guard as well as trainers from the 81st CST unit and Western Dakota Technical college's medical program for three full days of combined training.
- ESH completed the following incident investigation reports:
 - Oro Hondo Lock-out Tag-out (LOTO) near-miss
 - Lessons learned from the near-miss were communicated to affected personnel.
 - Unexpected stench release
 - The root cause is that the stench system holds residual ethyl mercaptan within the lines of the system.
 - A working group has been established to determine the next steps for the newly installed stench system.
 - Ross cage hoist rope damage
 - Immediate programming corrective actions were implemented.
 - A long-term corrective action that adds real-time logs to the hoist system is currently in the works.

- Yates cage damage from protruding lacing
 - Recent top-down maintenance work may have resulted in increased movement below the work area, providing a loosening of previous installed lacing that impeded the travel path of the conveyance. This cause may have solely affected the movement of the lacing or may have combined with a water release from a damaged pressure release valve on the 1850L to cause the lacing protrusion.
 - Corrective actions have been implemented and/or assigned.
- Yates Shaft report of smoke
 - During top-down maintenance, a spark contacted an end plate resulting in a hot spot in the timber.
 - Corrective actions have been implemented and/or assigned.
- The Training team began Guide Train-the-Trainer training for Fermilab and Kiewit-Alberici Joint Venture (KAJV) safety personnel, allowing Fermilab to conduct guide training for the next phase of the Long-Baseline Neutrino Facility/Deep Underground Neutrino Experiment (LBNF/DUNE) project.
- ERT is conducting internal Emergency Medical Technician (EMT) classes for ERT personnel.
- The Nuclear Regulatory Commission renewed SDSTA's Broad Scope Type C license; the license is valid for 15 years.
- The ESH Advisory Committee (ESHAC) conducted an annual onsite review. SDSTA received comments from the members for advancing a positive safety culture at SURF. Ten recommendations were made. The final report will be released in the coming weeks.
- ESH hosted the worker's compensation loss prevention site visit; zero findings were noted.
- The Security Manager coordinated a meeting with the City of Lead, SURF and FRA regarding the reopening of Mill Street and to discuss speed limits, "chains required" signage, and assistance with semi-truck deliveries to SURF during the winter months.
- The 4850L Ross Refuge Chamber is now capable of housing 194 personnel; all equipment arrived and has been installed. Guide training on this expansion will commence once the training has been completed by all affected personnel. SURF's total underground occupancy will increase.
- ESH is incorporating mental health training for Guides to provide resources for them to help deal with personnel during stressful emergencies.
- ESH is conducting field visits to audit documentation as a part of the sitewide work planning and control initiative.
- The action items from the Electrical Safety Review are complete.

Upcoming Activities/Trainings

- Q1 2024 SD ORM compliance visit.

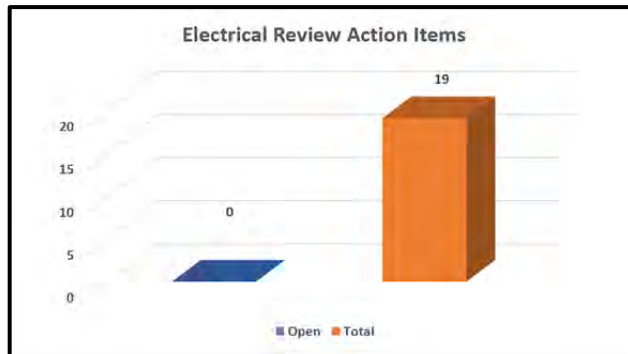
Wellness Initiatives

- October – Breast Cancer Awareness Month.
- November – Co-hosted the Veterans Day pancake feed.

Environmental Support

- All monthly Discharge Monitoring Reports for South Dakota National Pollutant Discharge Elimination System (NPDES) Permit were prepared and submitted to the state. There were no compliance issues.
- All monthly Spill Prevention Control Countermeasure (SPCC) inspections were completed.
- The Annual Stormwater Site Compliance Evaluation was completed.
- In October, Veolia was on site and removed 886 pounds of hazardous waste, 185 pounds of universal waste, 799 pounds of nonhazardous waste, and 40 pounds of non-PCB light ballasts.
- The ESH Department, with the assistance of the dewatering crew, collected water samples at the four underground sumps, the deep well, and the 2000L Pipeline. The samples were collected for informational purposes.
- The Environmental Coordinator successfully completed Environmental Protection Agency (EPA) Method 9 Visible Emissions Observation Testing. The certification is good for six months.

Third Party Review Recommendations Status



Surface and Underground Operations Status

Yates Shaft

Work Accomplishments

- Yates Shaft utilized as a secondary egress for an excavation contractor (two trips) when a kink was identified on the Ross cage hoist rope; all went safely and efficiently.
- Yates Shaft crew made it to set 240, five sets above the 1700L station.
- During pre-shift shaft cycling of the Yates conveyances on Friday evening, the hoist operator noticed erratic rope movement when the cage was at the 1850L. Through inspection, a faulty pressure relief valve (PRV) at the Yates 1850L was identified which allowed water to inundate the shaft station and subsequently run down the shaft. Within this general area of the shaft, a piece(s) of the perimeter lacing became loose and leaned out and into the cage compartment coming into contact with the cage. The lacing was found resting on top of the conveyance bonnet when crews accessed the site via the skip work deck.
 1. Underground access was limited at this time so crews could better inspect the conveyances, shaft, and hoist rope to ensure secondary egress was available via the Yates.
 2. Yates crew replaced the failed PRV, repaired damage to the conveyance and installed new lacing at the area of the incident.
 3. Underground access was restored the next shift, dayshift Saturday morning.
- SDSTA received a report that a smell of smoke was coming from the Yates Shaft. Upon inspection of the shaft, it was discovered that an end plate was smoldering. The end plate was removed and brought to the surface. The area was wetted down and inspected with a thermal imaging device. Further hot spots were not detected. Top-down maintenance has been curtailed until a hot work permit is in place, the crews are trained, and the top-down maintenance Standard Operating Procedure (SOP) is revised and finalized.
- Two safety standdowns with all Yates Shaft crews and hoist operators were completed.

Upcoming Activities

- Plan for re-build of the 1700L station.
- Implementation of hot work permit and work planning and controls.
- Incorporate weekly quality inspections.
- Focus on Top-down maintenance in skip compartments from the 1700L – 2600L, specifically structural timber.
- Continue Top-down maintenance to reach the loose rocks below 4100L.

Ross Shaft

Work Accomplishments

- Ross Shaft crews safely slung over 292 separate loads to support LBNF/DUNE.
- Ross Shaft crews supported TMI bolting in the shaft in preparation of Ross brow excavation.
- A kinked hoist rope was identified on the Ross cage hoist during routine pre-shift inspection on October 14.
- Ross/Yates and hoist maintenance crews performed a rope cut of the Ross cage rope and installed a legacy thimble connection. Vendor support from Silver States is traveling to SURF to conduct non-destructive testing

(NDT) on the entire rope length. A socketed connection was be installed by Silver States. The socketing process takes 12 hours to cure. Underground service returned dayshift on October 19.

- The industrial water line that runs from the Ross Top to the 5000L became plugged and water was re-routed through the Yates Shaft.
- Ross Shaft crew supported Science during the scheduled Yates power outage.

Upcoming Activities

- Support for Ross brow excavation activities.
- Plan for remaining saddle bolt torquing.

Hoist Maintenance

Work Accomplishments

- NDT was completed on all hoist ropes. All passed with a recommendation to increase visual inspections on the Ross south skip rope. Broken wires were identified in a pre-shift inspection prior to NDT.
- Both Ross skips underwent rope cuts. As part of the project, new thimbles were installed in place of resin sockets. Using thimbles allows the SDSTA the ability to better address events such as slack rope.
- Ross cage hoist speeds increased to 1,500 fpm for materials only.

Upcoming Activities

- Yates cage rope cuts.
- Install Seimag computer log.
- Bi-annual hoist rope NDT.

Underground Hazard Mitigation

Work Accomplishments

- Completed installation multiple ventilation stoppings on the 2000L and 2150L.
- Continued removing legacy pipe and fixing track on the 4550L.
- Began installing ventilation regulator on the 3950L.
- Began cleaning out 4850L 17 Ledge Motor Barn.
- Cleaned out ditch on the 1700L between the Ross Shaft to the Yates Shaft crossover.

Upcoming Activities

- Complete MineStar system commissioning on the 4850L in the East and South Drifts.
- Complete MineStar system commissioning in the 1700L transportation corridor.
- Complete installation of ventilation stoppings on the 3950L.
- Continue removing legacy pipe and fixing track on the 4550L.

Surface Operations and Utilities (SOU) Support

Facility Maintenance (Surface and 4850L) and Mobile Equipment

Work Accomplishments

- Working to renew multiple three-year service contracts (HVAC, Drinking Water, Janitorial, etc).
- Annual preparation for cold weather completed.
- Davis Campus Facility Technician attended three-day WWTP training.
- Buildings & Ground staff facilitated the SLHVC roof inspection.

Upcoming Activities

- Planning training required for any new contractors prior to final quarterly Preventive Maintenances (PMs).

Electrical / Cyber Infrastructure / Dewatering

Work Accomplishments

- Supported the outage required to switchover power to the new East Switchyard feeder.

- Completed fiber upgrades underground to support Minestar project.
- Repaired / refurbished multiple underground locomotives.
- Electricians attended Qualified Electrical Worker (QEW) training (both level 2 and 3).

Upcoming Activities

- Planning for potential PLC upgrades

Wastewater Treatment Plant (WWTP)

Work Accomplishments

- Hired and trained a new operator to back-fill David Johnson's former position.
- Adjusted flows into WWTP to account for colder ambient temperatures.
- Treated roughly 175,000,000 gallons of water last quarter.
- Worked with Engineering to finalize MBBR design elements.

Upcoming Activities

- Working with a contractor to begin media changeout in Yardney filters in early December.

Operations Integration and Maintenance Planning

Work Accomplishments

- Asset barcoding is now available and working properly.
- Assisted IT with adding a significant amount of assets to ManagerPlus (M+) for ease of access by a simple scan of a barcode.
- Improvements have significantly increased when sorting through scheduled vs. unscheduled work. A more accurate picture is now captured of work being done throughout the SOU Department.
- Provided training to various departments on M+ (Communications, Operations, Administrative Services, ESH).
- Worked with ESH and Procurement teams to develop a process within M+ to notify purchasing of traceable items.
- Staff received ergonomic evaluation of workstations.

Upcoming Activities

- Underground trip to 4850L to identify any updates to PMs and/or assets.
- Working with Buildings & Ground staff to sort and file legacy locomotive drawings found at Homestake Adams Research and Cultural Center (HARCC) and the Upper Foundry.
- Starting on plan for 2024 cycle count of warehouse stock items.
- Work on updating PMs in M+ to reflect new vendors for new service contracts issued.

Engineering Support

Work Accomplishments

- SURF 4850L Laboratory Expansion: The design phase of the project is nearing completion, with the 95% Design submittal being due December 15. SDSTA issued an RFP to TMI in November for the construction phase of the work; proposals are due late December.
- Oro Hondo backup fan has been commissioned to 900 rpm (full speed) and can function as a backup fan to the AD fan if needed.
- 3650L Pump Room Rehabilitation contract awarded to Harrison Western. Preliminary kickoff meeting completed and a Notice to Proceed issued to begin procuring long lead items.
- 1250L Pump Room Rehabilitation design scope of work issued to the West Plains Engineering for a proposal.
- Water lines, gas, sewer, and electrical layers in the SDSTA Geographic Information System were updated.
- Sacred Circle Garden (Čhaŋgléška Wakhán) Substantial Completion issued November 21. Awaiting submission of as-built drawings and sprinkler system O&M manual before issuing Final Acceptance.
- Brownfield Grant application for environmental remediation was submitted on November 13. Grant award announcements are expected in Spring 2024.

- SLHVC Roof Assessment task order issued to West Plains Engineering. This effort includes interviews with staff involved in the roof construction and previous repair efforts, an on-site inspection, and a construction recommendation and cost estimate.
- Electrical Distribution Rehabilitation Phase 1: Created a high-level facility-wide electrical model using previous arc flash studies. Utilized auto-design and equipment evaluation modules to run through 40 power distribution scenarios. Reports help analyze minimum ratings needed for new electrical equipment.
- Ross Dry Locker Room Remodel Project: Established contract with Canfield Business Services to provide two remodeling layout designs for the Ross Dry Locker Room.
- Drafted and issued RFP for task order to Albertson Engineering to develop engineered plan to improve structure for Ross Headframe cage compartment trolley beam and replacement of concrete floor.
- Replace Power Cable East Switchyard project successful completion with a final cutover from the old to the new distribution cable on November 18.
- Completed development of the SURF Electrical Safety Program Manual. This task was assigned to the SDSTA Electrical Safety Committee to ensure compliance with Occupational Safety and Health Act (OSHA), National Fire Protection Association (NFPA), and DOE requirements.

Quality Assurance / Quality Control Status

Work Accomplishments

- Change Control Request (CCR) submittals and approval/pending (8/16/23 – 11/13/23)
 - Initiated CCRs – 57
 - Approved CCRs – 54
 - Pending CCRs – 3
 - SDSTA internal documents converted to Integrated Management System (IMS) format as of 11/14/23 – total of 479

CCR#	Title	Status	Approval Date
811	ESH Contractor Project Slide	Approved	8/16/2023
812	Roles and Responsibilities of Command Staff Forms	Approved	8/16/2023
813	Below the Hook Lifting Devices and Slings-Rigging Hardware Standard	Approved	8/29/2023
814	IT Internal and External Work Instructions	Approved	8/25/2023
815	Underground OPS Docs	Approved	10/12/2023
816	Underground OPS Form Update	Approved	8/28/2023
817	Underground OPS SOPs	Approved	8/28/2023
818	Relocated ESH Document	Approved	8/25/2023
819	Safety Sweep forms	Approved	9/1/2023
820	Confined Spaces	Approved	10/4/2023
821	PPE Standard	Approved	10/4/2023
822	SOP 23 Covering and Uncovering the Yates Shaft	Approved	9/6/2023
823	Information Technology Science Service and Support Plan	Approved	10/24/2023
824	Guide and Guide Training Standard	Approved	10/4/2023
825	IMS Org Chart Update	Approved	9/12/2023
826	SWPPP Map Updates	Approved	9/11/2023
827	SDSTA Division One Guide Specifications	Approved	10/31/2023
828	Stormwater Pollution Inspection plan	Approved	9/21/2023
829	4850L Davis Campus ERP Map	Approved	9/21/2023
830	New ESH controlled ERP Maps	Approved	9/21/2023
831	IT Work Instructions	Approved	9/21/2023

CCR#	Title	Status	Approval Date
832	Camera setup for shaft inspections	Approved	9/20/2023
833	Archive HR Documents	Approved	9/20/2023
834	CP Documents to Convert to IMS	Approved	9/20/2023
835	Compressed Gases	Approved	10/4/2023
836	Electrical Safety Standard	Approved	10/4/2023
837	Lockout-Tagout Standard	Approved	10/4/2023
838	Fire Prevention and Protection Standard	Approved	10/5/2023
839	SOP 22 Shaft Inspections	Approved	11/9/2023
840	Office Ergonomic Spot Checks	Approved	9/29/2023
841	Equipment Data Sheets	Approved	9/29/2023
842	New Document Type	Approved	10/31/2023
843	Surface Safety Sweep Form	Approved	10/4/2023
844	IMSM Doc Update Per Org Chart Change	Approved	10/31/2023
845	IMSM Procedure Docs Update	Approved	10/31/2023
846	SURF Electrical Safety Manual	Approved	10/6/2023
847	Environmental Protection Requirements for Contractors at SURF	Approved	10/11/2023
848	Double walled tank integrity test form	Approved	10/11/2023
849	SDSTA Contractor Special Conditions Supplement (Archive)	Approved	10/12/2023
850	SDSTA Map Template	Approved	10/25/2023
851	Tramway ERP Map	Approved	10/20/2023
852	4850L Davis Campus ERP Map	Approved	10/20/2023
853	Ellison SWPPP Map	Approved	10/17/2023
854	Update Audit Schedule Doc	Approved	10/25/2023
855	DCCS Process Work Instruction	Approved	10/17/2023
856	Ross Headframe, Dry, & Maintenance Shop Revisions	Approved	10/20/2023
857	COTO Log Meeting process	Approved	11/8/2023
858	FI Docs	Approved	11/7/2023
859	Science Publication Guidelines	Pending	NA
860	Travel checklist (Guidelines)	Approved	11/7/2023
861	ESH Safety Requirements Contracts	Approved	11/3/2023
862	IMS Org Chart change	Pending	NA
863	SOP 114 Ross 4850L Refuge chamber	Approved	11/14/2023
864	Contractor check in log	Approved	11/14/2023
865	ESH Contractor Pre-bid slide deck	Approved	11/14/2023
866	ESH Contractor Award meeting deck	Pending	NA
867	New Contracts & Procurement documents	Approved	11/14/2023

- Completed projects
 - Nothing to report
- Other completed activities
 - Internal Process Audits
 - Science Department Internal Audit
 - Engineering Department Internal Audit
 - Hoists and Shafts Department Internal Audit

- Contract and Procurement Department Internal Audit
- Human Resources Department Internal Audit
- Complete ISO/IMS Annual Refresher Training

Upcoming Activities

- Upcoming development and release of QA/QC Training
 - Nothing to report
- Upcoming projects
 - Completion of Saddles Torquing 5, 6, 7 Locations (estimated date 3/2024)
 - Access Control Project (Phase II/III)
 - 3650L Pump Room Rehabilitation Project
 - WWTP RBC Replacement
 - Yates Hoist Room Roof Repair
- In-Process projects
 - East Switchyard Power Cable Replacement
 - Oro Hondo Fan Project
 - 4850L UG Laboratory Expansion - Phase A By-Pass Drift
 - Sacred Circle Garden Project
- Upcoming other activities
 - January Management Review 2024
 - Internal Audits (TBD) CY2024 Q1
- In-Process other activities
 - COTO log reviews (continuous)
 - Closeout Quality, Environmental and Occupational Health and Safety Objectives for CY2023
 - Create Quality, Environmental and Occupational Health and Safety Objectives for CY2024
 - Establish Audit schedule for CY2024
 - Surface Operation and Utilities Department Internal Audit (CY2023 Q4)
 - Inclusion, Diversity, Equity and Access (IDEA) Office Internal Audit (CY2023 Q4)
 - Quality Assurance/Quality Control Office Internal Audit (CY2023 Q4)

Science Support Status

- The Particle Physics Project Prioritization Panel (P5) committee will present their strategic plan to the High-Energy Physics Advisory Panel (HEPAP) on December 7, followed by a community town hall meeting at Fermilab. Recommendations outlined in the Snowmass input for P5 included LBNF/DUNE Phase I & II and the need for more underground space.
- The Long Range Plan for nuclear science was released in October: <https://science.osti.gov/np/nsac/Reports>. SURF is mentioned in context of nuclear astrophysics (CASPAR) as well as neutrinoless double-beta decay, including a note that SURF expansion is appropriate for a next-next-generation beyond-ton-scale detector.
- The Science Program Advisory Committee (SPAC) meeting in September included a discussion of a steering committee of community leaders to assist with the SURF Science Strategic Plan.
- The SURF proceedings write-up for the XVIII International Conference on Astroparticle and Underground Physics (TAUP 2023) was accepted in early December for publication (and submitted to the arXiv pre-print server). A write-up showcasing SURF's approach to school education, community activities, and public outreach was accepted to a special edition of Frontiers in Physics.
- SDSTA Director of Science Jaret Heise participated in an underground science workshop sponsored by the Modane Underground Laboratory.
- Planning is underway for the Conference on Science at SURF (CoSSURF) being held at SD Mines in May 2024 (including User Association sessions), and the CETUP* 2024 workshop being held over five weeks (Jun 17 – Jul 19) in Lead, with topics in dark matter and neutrinos.

- SURF facilities and capabilities were presented at several different SD Mines workshops in the past quarter. Science Department personnel also participated in Dark Matter Day and other public outreach events.
- Topics at the upcoming mid-December User Association Executive Committee meeting include SPAC recommendations as well as planning for General Meeting sessions during CoSSURF 2024.
- Interruptions: Due to advanced planning and communications, few issues were encountered at the Davis Campus during the November power outage; stable operations for all groups were restored after 3-4 days. Researcher access was impacted for two regular workdays following the Ross cage rope incident in October. Also in October, an accidental release of stench prompted an underground evacuation that affected access on one shift.

LUX-ZEPLIN—LZ

- High-quality data continued to be collected for science run #3. As of early December, over 134 days of WIMP-search data have been collected in addition to a significant calibration campaign that included the DD neutron generator (sufficient data were collected despite some coolant issues).
- While disruptive, the November power outage was weathered better than some had expected. Most systems were turned off prior to the outage, but some high-voltage grids remained on emergency power to reduce the risk of light emission events that prematurely ended science run #2.
- With the recent addition of a LBNL BF3 neutron detector, local background characterization data (radon, gamma ray, and neutron) have been incorporated into the main data stream.
- A series of adjustments have been made to improve the sensitivity of the outer detector radon monitoring system, including resolving a detector humidity issue.
- Xenon compressor maintenance has started and will continue for several weeks. Options for compressor diaphragms continue to be investigated with a local business in Rapid City (components manufactured from powdered material using a laser) and testing facilities at SD Mines (Metallurgical Engineering Department).
- Preparations are underway to receive a new nitrogen (gaseous) generator. Initial tests will be conducted on the surface before the system is moved underground (a concrete pad is expected to be poured in December).
- As space in the surface Administration Building is limited, LZ is providing additional supplies to outfit office space for researchers at the Surface Laboratory.

MAJORANA DEMONSTRATOR—MJD

- In the past quarter, three collaboration papers have been accepted to high-impact journals: Constraints on the Decay of Ta-180m (<https://doi.org/10.1103/PhysRevLett.131.152501>), Exotic Dark Matter Search (PRL) and Charge Nonconservation and Pauli Exclusion Principle Violation (Nature Physics).
- Ta-180m data taking continues, and the collaboration is requesting operation through September 2024. A call for proposals to the community for future use of the space is planned for early 2024 (SPAC members will review).
- As of late September, copper growth was underway in all four electroforming baths at Davis Campus, but the last bath that was assembled is experiencing issues and needs to be rebuilt. Needs for LEGEND-1000 starting in FY25 could see electroforming efforts at SURF scale up to seven baths.
- The November power outage interrupted copper electroforming, and in one case a mandrel was pre-emptively removed from its bath to minimize the loss of copper growth. In addition, the electroforming slow controls monitoring computer failed during the power outage (expected to be replaced in early December) and the liquid nitrogen (LN) controller for the shield purge system also failed (troubleshooting continues).
- Preparations continue for the glovebox purge system, including calibrations of the associated dewar fill sensor (also awaiting parts from LANL).
- Copper machining continues on a roughly bi-weekly schedule (same schedule expected after contract renewal).
- Electrowinning (and neutralization) efforts continue at the surface WWTP; the latest batch started in November.

Low-Background Counting

Black Hills State University Underground Campus—BHUC:

- Regular sample and LN logistics continue with BHSU personnel and SDSTA support. Recent samples include LZ, COHERENT and TESSERACT materials.
- For the November power outage, systems were offline for roughly three days (except the LLNL dual-crystal system, which had sufficient UPS battery protection to last ~6 hours).

- University of Kentucky personnel were onsite mid-November to evaluate the status of the nEXO Ge-IV detector. The cryocooler had been offline since a summer power blip left the detector powered without cooling but is operating stably after an LN refill. The detector is currently operating, and the group is assessing detector efficiency and energy resolution. In the meantime, background data are being collected until early in the new year.
- Power to the cooling system for one of the LBNL-managed systems was accidentally disconnected – after the system exhausted its LN supply, it successfully powered down. It will be brought back online in early December.
- Commissioning for the LBNL dual-crystal system is advancing with new electronics and Virginia Tech support.
- Troubleshooting continues for the LLNL electronics.

DEMO-FTES

- Experiment materials are beginning to arrive at SURF, and supplies for the SURF electrical upgrade are onsite.
- Crews are expected at SURF in the December/January timeframe (schedule slip due to DOE funding/contract delays).

Compact Accelerator System for Performing Astrophysical Research—CASPAR

- A collaboration paper was published on the $^{11}\text{B}(\alpha, n)^{14}\text{N}$ reaction: <https://doi.org/10.1103/PhysRevC.108.035809>.
- Discussions have been held regarding radiation monitoring.
- The arrangement of Refuge Chamber materials in the CASPAR laboratory space is being discussed.

Other Current Research Activities

Physics

- TESSERACT: A SURF update was presented at the October collaboration meeting. The collaboration is still considering underground sites in France as well as SURF.
- Cryogenic Test Facility: The Virginia Tech proposal to the National Science Foundation (NSF) to fund a dilution refrigerator was improved based on reviewer comments and resubmitted in November (including interest from LANL low-mass dark matter experiment SPENDOR).
- A second DOE RENEW student science program with ties to SURF has been funded (in addition to Texas program).

Biology

- Plant Growth: With implementation documentation complete, initial setups were completed to begin seed germination at two locations (surface and underground).

Geology

- BH Geochemistry: SD Mines is wrapping up their five-month-long monthly sampling program in December.
- Center for Understanding Subsurface Signals and Permeability (CUSSP): DOE announced funding for a new geothermal project ; PNNL leads the team. Dates for a kickoff meeting at SURF are being explored (~Jan 2024).
- Other: SD Mines faculty are interested in underground rock stability monitoring at SURF.

Engineering

- Thermal Breakout: A mock deployment test in the 4100L vertical hole highlighted the need to remove some concrete to expand the hole collar diameter. Heater tests are expected in Q2/Q3 2024.
- Other: SDSU representatives are interested in having a monitoring station at SURF.

Quarterly Work Plan Variances

- The Quarter (August – October) ended with a CA contract-to-date underrun of \$1.68M.
- September ended the 4th year on the CA with an underrun of \$409K.
- DOE added \$1.576M in September to the FY2023 budget for unplanned expenses. This included the:
 - Yates Shaft rehabilitation
 - Ross Shaft guides
 - New deep well pump
 - \$3.00/hour rate increase for the Infrastructure Technicians
- DOE approved funding for three large IIP projects in September:
 - 3650L Pump room design and construction – \$4.4M
 - Yates roof replacement – \$2.1M
 - WTPP RBC replacement 1st installment – \$2.3M

Financial Status

Included in the Financial Report are the following:

- Cooperative Agreement (CA) SURF Services FY2024 (federal fiscal year) SPA Curve as of October 2023 (included as Appendix A at the end of the report)
- Financial Summary (included as Appendix B at the end of the report)
 - 1) Balance Sheet as of October 2023
 - 2) Comprehensive Statement of Income October 2023
 - 3) Comparative Balance Sheet – October 2023 vs. October 2022
 - 4) Comparative Statement of Income – October 2023 vs. October 2022
 - 5) Available Resources as of October 2023
 - 6) Operating Budget Summary

Cooperative Agreement (CA) SURF Services FY2024 Scheduled Performed Actual (SPA) Curve

- The SPA curve presented in Appendix A provides a summary of the CA-SURF Services Award No. DE-SC0020216 scheduled financial performance compared to the actual costs. The report shows funding through October 2023 along with information related to Funded-to-Date dollars, Scheduled dollars, and Actual dollars by month. Actual dollars represent actual invoices for the months sent to the DOE Office of Science for reimbursement. For October, the invoices totaled \$1,061,088 which is higher than the anticipated reimbursements of \$2,332,139 by \$1,271,052. Cumulative expenses are at \$96,124,548 which is lower than the budgeted \$97,804,516 by \$1,679,968.

Balance Sheet Items

- Cash in Local Checking—Total on hand October 2023 was \$4,488,663; down from last month by \$776,602. Funds on hand were necessary to pay operating expenses including employee salaries, medical/life/vision insurance, and other items.
- Cash with State Treasurer—Total balance of \$23,509,690; This amount decreased from last month by \$296,010 with the use of the cash provided by Senate Bill 35 for the underground expansion phase 1 and an interest payment on the xenon note payable from the Experiments cash balance.
- Billed Accounts Receivable (A/R)—Billed A/R represents any open invoices based on contracts from sources such as the DOE Office of Science, LBNL, Fermilab, other smaller contracts from other universities/private entities, and Barrick-Homestake Mining Company. Total is at \$1,140,888; up from last month by \$479,943. Included in the balance are open invoices for: \$207,861 from Fermilab primarily from the contract for Ross Shaft Logistics Support; \$900,817 from the DOE for the CA and the LZ project; \$2,471 from the SDSM&T for the MJD project; \$2,382 from Thyssen Mining Incorporated (TMI) for equipment rental; and \$27,357 from the Barrick-Homestake Mining Company for electrical usage reimbursement and water treatment.
- Unbilled A/R—Current balance is \$1,064,845. The unbilled A/R represents items that have not been billed on various contracts, in this case it was for expenses related to labor costs paid on November 3, and the CAT reimbursement. October's balance decreased by \$19,554 from September.
- Other A/R—Current balance of \$455,779. This balance represents Interest Receivable and Miscellaneous Accounts Receivable. The balance increased by \$28,629. Activity for this month includes recording the interest accrual for October.
- Inventory/Supplies—Balance at \$3,273,639 for fixed assets being stored but not in service. This balance increased by \$6,017 from last month.
- Inventory Warehouse/Personal Protective Equipment (PPE)—Current balance of \$512,122. This balance represents the warehouse inventory that was purchased by SDSTA prior to federal funding, the warehouse inventory purchased with federal funds, and an inventory category for the SLHVC inventory. The balance was unchanged from the previous month. All three inventories have separate account balances that are tracked; yet, they are summarized on the balance sheet under one category.
- Other Current Assets—This listing on the balance sheet represents the balances of both prepaid insurance—\$510,987 and prepaid other – \$600,865. Total balance of \$1,111,852 increased from last month by \$20,369. This increase is primarily due to prepaid software maintenance agreement costs and FRA's share of the OIP insurance costs being held.

- Fixed Assets—Current balance of \$95,485,669. Fixed assets activity since last month includes recording a cordless electric belt cutter, 2024 Bobcat MT100 track loader, Bobcat HB680 hydraulic breaker with nail point, and the surplus of 3 Bosch boilers. – \$16,991. The net decrease of \$207,378 since last month includes depreciation on fixed assets. Note: depreciation for the DOE Property Transfer items is separated as this amount will not be included in our indirect cost recovery on contracts.
- Asset Retirement Obligation Deferred Outflows (ARO)—There will be costs associated with closing SURF, if abandoning the site would occur. Outside regulatory agencies involved with oversight of the closure would be the U.S. Environmental Protection Agency, and the South Dakota Department of Agriculture and Natural Resources. The capital assets on SDSTA's financial statements that would be included in the asset retirement obligation are land, above ground and underground infrastructure, and buildings. A team of internal experts including mining engineers, mechanical engineers, construction managers, heavy equipment experts, all with expertise in mining, underground, and environmental industries developed the estimate. The methods and assumptions used by these experts were to estimate hours associated with completing all necessary tasks using a current average salary and benefit rate, plus any associated contractor fees. The ARO balance is \$1,129,638 and is depreciated over an estimated useful life of 30 years.
- 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 SDSTA financials along with related deferred inflows and outflows. The State's retirement system is now fully funded. The Net Pension Asset is a restricted asset. Thus, the equity created is also restricted. The balance Pension Deferred Outflows shown as a noncurrent asset is \$5,823,104 created by the FY2023 financial entries.
- Xenon Purchased—Balance of \$8,687,833 represents the value of xenon purchased for use by experiments. The xenon inventory is considered a non-current asset and includes all the purchases through fiscal year 2020.
- Total Assets—Total of \$146,646,070. This balance has decreased from last month by \$764,586 which represents the net activity as listed above.
- Accounts Payable—Our Total Accounts Payable balance of \$1,344,360 at the end of the month compared to last month has decreased by \$159,901. This decrease is primarily the net of payments made and payables added for RCS Construction in October for the Sacred Circle Garden project and East Substation Cable Replacement project - \$245,567.
- Accrued Payroll Liabilities—Current balance of \$2,299,891 has increased by \$46,470 from last month. This represents the net change between earned vacation and vacation taken and other changes in employee benefit-related liabilities.
- Long Term Xenon Notes Payable—This designation represents \$2M of funding received from the South Dakota Community Foundation, \$2M received from the University of South Dakota Foundation, and \$2M received from the South Dakota State University Foundation. The \$6,000,000 was designated for purchasing xenon for experiment use at SURF. The balance is currently \$3,121,190 after a principle payment was made this past year with the proceeds from the sale of a small portion of the xenon.
- Pension Deferred Inflows—This classification reflects the requirements of GASB No. 68 and No. 71, as discussed earlier. The balance of \$3,447,916 represents SDSTA's portion of the difference between projected and actual earnings on pension plan investments with the South Dakota Retirement System.
- Asset Retirement Obligation (ARO)—This is an estimated liability for costs associated with closing SURF, if abandoning the site would ever occur. The ARO balance is \$1,196,885 and is adjusted annually.
- Total Liabilities—Total Liabilities decreased by \$113,431 (from \$11,523,673 to \$11,410,242), which reflects the net activity listed above.
- Total Equity—decreased to \$135,235,828 from the previous months \$135,886,983.
- Total Liabilities & Equity—Decreased to \$146,646,070 from the previous month of \$147,410,656.

Statement of Income Items

- On the SDSTA's Statement of Income, the DOE Subcontracts are consolidated into one line on the report. Included in this amount are various subcontracts from Lawrence Berkeley National Laboratory (LBNL), Fermi National Accelerator Laboratory (FNAL), the CA with the DOE Office of Science, as well as a small contract for the MAJORANA project with SD Mines. Total revenue through October is \$13,199,426.
- Interest income recorded for the current fiscal year on State Funds is at \$107,052. This represents interest accruing at 1.75% 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 \$9,359,045 for the current fiscal year. Indirect Costs including fringe benefits are at \$6,366,136. Costs are higher than revenue by \$2,415,781.
- Other Income is at \$227,686 which primarily represents miscellaneous income received from TMI, scrap metal receipts, and amounts from Barrick.
- Miscellaneous Expenses and Donations is at \$1,751,757 for current year fixed assets that were purchased on federal funds through the CA, transfers from the SURF Foundation for the Sacred Circle Garden, and sales at SLHVC.
- Loss (Gain) on Sale of Fixed Assets is at \$15,433 for the current year.
- Net Income through October is at a gain of \$230,351.

Comparative Balance Sheet

- Total in Local Checking is higher by \$83,747 from this time last year.
- Total Cash with State Treasurer is higher by \$12,400,951 from this time last year as funds have been received from the State in SB35, the State's interest proration, as well as funds have been used from the Experiment funds for the xenon interest on the notes payable.
- Total Current Assets are higher than last year by \$12,241,999 primarily from the cash received from SB35 for the underground expansion phase 1.
- Total Fixed Assets are higher by \$1,867,405 when comparing the two-time frames. The biggest change was in fixed assets purchased on the CA federal funds – an increase of \$2,699,907; primarily from finalizing the tuck pointing and roof drain project, purchase of the deep well pump and motor, and construction of the Wastewater Treatment Filtration building. The second biggest change was in work in progress – an increase of \$2,112,451; primarily from work on the Oro Hondo fan project, 3650L pump room project, and the Wastewater Treatment Plant project. Accumulated depreciation is also part of this balance – an increase of \$1,851,738.
- Asset Retirement Obligation Deferred Outflows is being reported for \$1,129,638. An accumulated depreciation amount is included for this item, currently at \$37,655.
- Pension Deferred Outflows has changed from last year by a \$5,420,564 decrease based on the FY2023 entries.
- Xenon purchased decreased by \$246,517 due to the sale of some excess amounts last year. Proceeds were used to pay down the LT Xenon Notes Payable.
- In summary, Total Assets have increased by \$8,404,669.
- Total Current Liabilities are higher by \$331,344 when comparing the two-time frames. Total Current Liabilities is higher primarily due to Accounts Payable for the period being higher.
- Other Liabilities—LT Xenon Notes Payable has decreased by \$2,878,810 with the proceeds from the sale of a portion of xenon being used to pay down the amount owed to the three foundations. Pension Deferred Inflows has changed from last year by a \$5,852,211 decrease based on the fiscal year 2023 entries. The Asset Retirement Obligation has changed from last year by a \$67,247 increase due to estimated changes for inflation.
- Total Restricted Funds are higher by \$12,575,957, primarily due to the entry of the Restricted SB35 Appropriation for the underground expansion phase 1.
- Investment in General Fixed Assets has increased by \$1,867,405 for the various additions of fixed assets and projects purchased on federal funds, and work in progress being reported.
- Unrestricted Funds are higher by \$2,293,736 when comparing the two-time frames.
- Total Equity has increased by \$16,737,098 from this time last year.
- In summary, Total Liabilities & Equity have increased by \$8,404,669.

Comparative Profit/Loss

- Total Revenue for year-to-date October 2023 compared to year-to-date October 2022 has increased by \$1,022,928. This increase is primarily an increase in activity on DOE subcontracts. Direct Costs and Indirect Costs for year-to-date October 2023 compared to this time last year shows a combined increase of \$953,198. Net Income/Loss for the comparative time periods shows an increase of \$432,733.

Available Resources

- This report reflects SDSTA's available cash/accounts receivable after noting the restricted cash balances in the Indemnification, Mine Closure, SB35 Appropriation, and funds held for Experiments—interest for investors. This

report reflects available cash and (short term) accounts receivable as compared to current liabilities including accrued payroll liabilities. After noting current obligations, \$4,693,384 is available. It is also important to note that the accrued payroll liabilities include accrued vacation and sick pay. Therefore, the report reflects SDSTA's available resources compared to current obligations.

Operating Budget Analysis

- This report is separated into three sections: SDSTA-funded activities, Federal, State, and Commercial-funded activities and Indirect expenses that benefit various activities. Total operating expenses are under budget for October by \$976,913. This is primarily due to expenses for the CA lower than budgeted as well as Indirect expenses are lower than budgeted.
- Year-to-date figures are under budget by \$2,600,018.

Human Resources

Projects:

- Successfully onboarded new HR Generalist
- Completed market analysis on all SDSTA position descriptions
- Drafted Cooperative Agreement HR narrative
- Implemented first-time Vacation Cash Out program
- Filed 2022 EEOC Report
- Distributed Medicare Part D Annual Notice
- Passed HR Internal ISO Audit

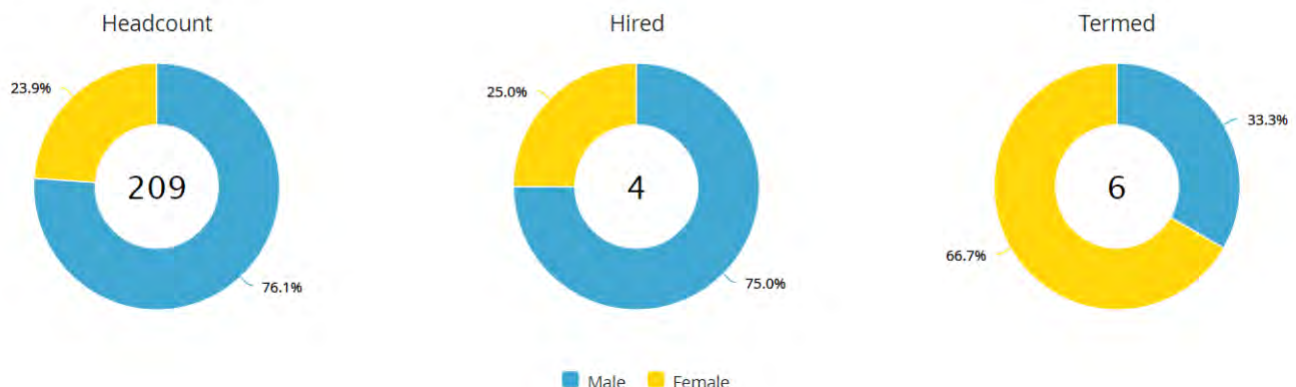
Hires: 4

Terms: 6 (5 were temporary/seasonal or non-benefit part-time)

Data:



Gender (Legal) at a Glance

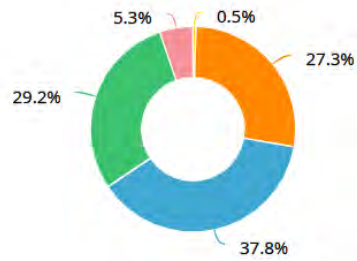


Generation

ooo

Current

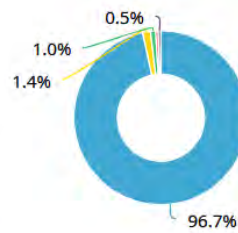
Trends



- Pre Baby Boomers (1900 - 1944)
- Baby Boomers (1945 - 1964)
- Generation X (1965 - 1980)
- Millennials (1981 - 1994)
- Generation Z (1995 - 2010)

Ethnicity

ooo



- White
- Two or More Races
- Hispanic
- Other
- American Indian / Alaskan Native

Professional Staff Services – Subcontract No. 607915

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

- Scanned Ross headframe near collar to model cryostat L beam moving and loading.
- Worked with FRA/Arup/KAJV to complete the remediation of issues with junction boxes installed in the Ross Shaft. Electrical equipment failures have occurred due to incorrect cable installation methods (improper cable bending, spacing, and splicing) in junction boxes located in the Ross Shaft.

LZ Operations Phase I – Subcontract No. 7525117

Other Experiment Support

LUX-ZEPLIN (LZ)

- Gaseous Nitrogen Generator – Working with SDSTA Engineer David Taylor, Underground Operations Director Bryce Pietzyk and Infrastructure Technician Sarah Wortman, the gaseous Nitrogen Generator Project to support LZ has progressed forward. Currently, the buffer volumes, compressed air filters, compressed air drier and compressed air piping are onsite.
- Direct Energy Deposition Xenon Compressor Diaphragm – Working with the LZ Collaboration, RPM Innovations, Inc. and South Dakota Mines, planning for the development of a direct energy deposition xenon compressor diaphragm has been completed.
- SURF technicians supported a month-long calibration campaign of the LZ detector systems and coordinated systems protection during scheduled electrical shutdown.

Indirect Funded Activities Status

Contracts Status

Department of Energy (DOE) subcontracts to SDSTA

US Department of Energy, Office of Science

- SDSTA received Modification #30 for *Increase Wages for SURF Infrastructure Technicians*.
- SDSTA received Modification #31 for the *Design and Construction of a Replacement Pumproom at the 3650L*. (IIP)
- SDSTA received Modification #32 for the *Repair of the Yates Hoistroom Roof*. (IIP)
- SDSTA received Modification #33 for the *Construction phase of Replacement for the Rotating Biological Contactors at the Wastewater Treatment Plant*. (IIP)

Fermi Research Alliance

- No contract changes.

Lawrence Berkeley National Laboratory

- SDSTA received Modification #1 to Contract #7650068 for *LZ Project Operations, Engineering and Research Support at SURF* extending the contract until September 20, 2026.

Summary of Contracts Awarded by SDSTA September 2023 – October 2023:

Contract No.	Contractor/Vendor	Type	Project
2022-43	Designworks	CO# 1	Add scope and extend end date
2021-02	Marco	CO# 3	Add HR printer
2019-39	North Central Supply	CO# 12	WO# 75930 HR Locks Move
2022-24	RCS	CO# 2	Relay Settings
2023-09	Harrison Western	NEW	3650L Pump Room Rehab
2023-18	True Clean Carpet and Janitorial	NEW	Custodial Services
2019-28	Jacobs Welding & Machining	CO# 36	WO# 77068 Skip Bracket Work
2022-53	Amick Sound	CO# 1	Year 2024
2022-26	Overhead Systems, LLC	CO# 1	Add Funds
2023-31	Sander Sanitation Services	NEW	Garbage Services
2023-30	Culligan - Competition	NEW	Bottled Water Service
2023-09	Harrison Western	NEW	3650L Pump Room Rehab
2021-03	Carl Barchet	CO# 3	Facility Advisory Committee (FAC) Chair
2020-06	West Plains Engineering	CO# 3	Update Rates
2021-29	Edward Cumnesty	CO# 2	SURF Strategic Advisory Committee (SSAC)
2023-32	Silver State Wire Rope	NEW	Bi-Annual NDT Wire Rope Inspections — Surface
2023-14	RCS	CO# 1	Update Insurance
2022-24	RCS	CO# 3	Reduce/Add Scope Extend End Date
2020-05	West Plains Engineering	TSK# 9	SLHVC Roof Assessment
2019-30	Wolff's Plumbing & Heating	CO# 11	Replace Yates Ramp Heater
2022-24	RCS	CO# 4	VCB Maintenance
2019-40	Silver State Wire Rope	CO# 10	Emergency Repair Service
2022-32	RCS	CO# 2	Extend End Date
2022-43	Designworks	CO# 2	Extend End Date
2019-28	Jacobs Welding & Machining	CO# 37	WO# 78645 Yates Supplies
2023-33	Johnson Controls	NEW	PM Services

Contract No.	Contractor/Vendor	Type	Project
2020-05	West Plains Engineering	TSK# 10	1250L Pump Room Rehab
2019-39	North Central Supply	CO# 13	Repair Door Closer
2021-23	ATEN Design Group	CO# 6	Add Scope and Funding
2022-33	RCS	TSK# 10	Replace Yardney Filter
2023-22	Johnson Controls	NEW	HVAC Maintenance Services

Purchase Orders (POs): 592 POs were issued September 1 – November 30, 2023 totaling **\$1,367,029.55**.

Warehouse Inventory: Warehouse inventory as of November 30, 2023 totaled **\$303,557.68**.

Inclusion, Diversity, Equity and Access (IDEA) Status

- Construction of Čhaŋgléška Wakǵáŋ was completed in November 2023. A planting event will be hosted in mid-June and feature Native American music and storytelling.
- IDEA has updated Čhaŋgléška Wakǵáŋ's webpage to reflect our vision and goals of the Garden, as well as to promote the Lakota name, which translates to sacred circle or hoop.
- The IDEA Office requested donations in the amount of \$500 for both the Ateyapi Program to attend Neutrino Day in 2024, and for a sponsorship of the Lakota Nation Invitational Basketball Tournament in Rapid City. The donations were approved by the newly formed SURF Donations Request Committee.
- The IDEA Office is currently scheduling programming for the Deep Roots speaker series this summer. Topics will include culture, science, art, and history.
- The IDEA Office worked alongside Communications and the SLHVC to develop social media for National Native American Heritage Month. The posts highlighted interesting facts about Native American culture, as well as books by Native American authors, including titles for sale at the Museum Store.
- IDEA has submitted a summary of its work related to the Equity, Diversity and Inclusion (EDI) alongside SNOLAB which is currently under review by Frontiers in Physics for potential publication in their Social Physics subsection.
- George Campbell has retired from his role as Chair of the Cultural Advisory Committee. Rylan Sprague will begin serving as the CAC Chair in January 2024. George will be honored for his time on the committee at the planting event at the Garden in June 2024.
- The Star Knowledge Working Group continues to meet, and its last meeting was held December 6 to further the work of exploring connections between the research at SURF and Lakota Ways of Knowing.
- IDEA is working alongside Human Resources to develop a Community Agreement for the collaborations working on SURF property.
- The 'Lunch and Learn' sessions have continued. SURF Foundation Director Michelle Kane presented an overview of The Institute at SURF for staff in October, and IDEA Program Lead Rochelle Zens presented on Čhaŋgléška Wakǵáŋ, the ethnobotanical garden at SURF, in November as part of National Native American Heritage Month.
- IDEA is continuing its work with the SLHVC to update materials for public education, including the video script, photo frieze, and others. Work is also being done to improve accessibility.
- Coffee breaks continue to be well-attended at SURF. Communications hosted their annual chili cook-off coffee break in October, and the SLHVC and Human Resources co-hosted a pancake feed in November in commemoration of Veterans Day.
- The IDEA Office, E&O team, and colleagues from Black Hills State University are collaborators on the Cultivating Indigenous Research Communities for Leadership in Education and STEM (CIRCLES) Alliance, a six state NSF Grant geared at increasing Indigenous STEM education and career readiness opportunities. South Dakota hosted the first annual gathering of the CIRCLES Alliance in October, which included a visit to SURF. Members of the South Dakota team traveled to Sitting Bull College in November and met with the North Dakota team to plan summer professional development included in the grant for summer of 2024.
- Members of the IDEA Office, Communications, and the SLHVC are participating in the iPAGE equity training program through the Science Museum of Minnesota. The first in-person colloquia was held in November and two additional colloquia are coming up in January and March 2024.

Education and Outreach (E&O) Status

K-12 Education and Outreach

Curriculum units

- In September through November 2023, 22 curriculum units were utilized and returned from districts in South Dakota, impacting the science learning of 1,176 students.
- Currently there are 21 curriculum units being used out in classrooms impacting the learning experiences of 1,270 students.

Field trips (onsite)

- During the Fall 2023 field trip season, the E&O team hosted field trips with 14 school groups from South Dakota, Nebraska and California. The field trips included 530 students along with their teachers and chaperones.
- Requests for field trips have increased substantially. The Spring 2024 field trip season is fully booked with schools starting to schedule experiences for Fall 2024.

Classroom presentations

- In September through November 2023, presentations have been made in 17 school districts in South Dakota, North Dakota, Nevada and New Mexico serving 4,082 students.
- The E&O team has also supported local schools with their family STEM nights and career fairs. In September through November 2023, 6 communities were served, reaching 723 students and their families.
- Science Education Specialist Julie Dahl has facilitated a new partnership with the Deadwood library to offer programming for their K-5 after school students and families.

Professional Development (PD)

- In September, E&O team members facilitated an elementary science teacher workshop at Sisseton Wahpeton College in collaboration with SD Established Program to Stimulate Competitive Research (EPSCoR) for a group of 17 educators.
- The E&O team interacted with approximately 500 children and their families at the Sioux Falls Washington Pavilion opening of the SURF Water Exhibit in September.
- In October 2023, E&O Director Nicol Reiner helped facilitate a computational thinking workshop for elementary educators through an Elementary Computer Science grant in partnership with Black Hills State University (BHSU).

Undergraduate

- Fourteen pre-service educators from BHSU were on-site in October for a hoistroom tour, engineering activity, and discussion about best practices in the classroom for high quality science learning experiences.
- In September through November 2023, Julie and Science Education Specialist Ashley Armstrong worked with pre-service educators (34 from Dakota Wesleyan (DWU) 30 from University of South Dakota (USD) and 11 from Northern State University (NSU) to explore a SURF curriculum unit and talk about best practices in science teaching.
- In October, Diversity, Outreach & Culture Coordinator Emily Berry and Julie hosted a group of 12 undergraduates from the Indian University of North America for a SURF presentation and a tour of the WWTP.

Other

- Science Education Specialist Chad Ronish presented a session and hosted an exhibitor both at the SoDakSACA (South Dakota School Age Care Alliance – after school care programs) in October.
- Julie visited with the teachers at Belle Fourche middle and high school to discuss curriculum unit resources and ways to pair them with field trips and classroom presentations in October.
- In November, the E&O team hosted a SURF booth at the Indian Education Summit to collect data about science education in our communities, answer educator questions, share resources and award a “Zoom with a Scientist” classroom experience to one lucky educator.
- Members of the E&O team traveled to Sitting Bull College in North Dakota to collaborate on professional development programming for the CIRCLES grant, an Indigenous STEM initiative.
- Refer to Table 1 below for the annual numbers from fiscal year 2016 to present.

Table 1. K-12 Students: Fiscal year final numbers (July 1 – June 30)

	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024*
Curriculum Units	934	3504	2286	3598	3236	3384	3718	2554	1176
Presentations	8734	8157	6304	6704	3704	2005	14038	12799	4140
Field trips	595	660	796	1117	254	58	485	972	530
Other	10	891	825	1055	918	298	1468	1596	795
Total	10273	13212	10211	12474	8112	5745	19709	17921	6641

*Numbers include data from July 1 – November 30, 2023

Communications Status

- The new Director of Communications Ann Metli and Media Relations Manager Mike Ray have been fully onboarded.
- Communications worked with the Washington Pavilion to organize and carry out the grand opening of the SURF-sponsored water room and SURF exhibit at the Washington Pavilion.
- With SD Mines, Communications helped organize the SURF/SD Mines Board of Regents Legislative Social Hour in Rapid City.
- Work continues with rebranding efforts and the new SURF website. New logo design accepted, and branding strategy development is underway.
- Communications worked with E&O to staff the SURF booth at the Rapid City 8th Grade Career Fair.
- In conjunction with SLHVC, Communications continues to identify third-party travel resources hosting tourism-related content to ensure accurate information is available to potential visitors.

Community Outreach/Media/Site Visits/Presentations

- Roads Scholars presentation, Constance Walter, Sept. 11.
- SD Emergency Planning Conference presentation, Constance Walter, Sept. 11.
- SD Ag and Natural Resources presentation, Sept. 13.
- Roads Scholars presentation, Constance Walter, Sept. 26.
- Meeting with BH Pioneer Publisher/ Editor and Reporter, Rapid City Journal Editor, KOTA News Director Ann Metli, Mike Ray, Oct. 6, Nov. 7, Nov. 22.
- SD Biotech Association presentation (Sioux Falls), Markus Horn, Constance Walter, Oct. 13.
- Deep Talks: Dark Matter Day, Oct. 26.
- SURF Community Trunk or Treat, Oct. 29.
- SD CEO presentation, Constance Walter and Michelle Kane, Nov. 7.
- Deep Talks: Art and Engineering at SD Mines, Nov. 9.
- Leadership South Dakota SLHVC Tour, Mike Ray, Nov 15.
- Several interviews for SURF with local media, including KNBN News Center1, South Dakota Public Broadcasting, BH Pioneer, Dakota News Now, Rural-Coop magazine.

Upcoming Community Outreach/Media/Site Visits/Presentations/

- Deep Talks: Black Holes—The Edge of All We Know, Dec. 7.
- Nobel Day and The Institute for Science at SURF launch, Dec. 14.

Video, Web, Graphics

- Gold Run Creek Environmental Impact Video.
- Ongoing documentation of Čanġlěška Wakħān, an ethnobotanical garden at SURF.
- Streaming and recording Dark Matter Day.
- Streaming and recording Katrina Donovan Deep Talks.
- Teacher feature video with Lisa Bahe.
<https://www.dropbox.com/sh/ai4z1vq7fp7d52j/AACXw3A6XbvFA7JuBEoyd4S5a?dl=0>
- Updated videos prepared for The Institute launch presentation.

Photos of recent events/milestones are included as Appendix A.

News Coverage

- Theoretical work of Preparing for DUNE, <https://sciencesprings.wordpress.com/2023/11/21/from-symmetry-the-theoretical-work-of-preparing-for-dune/>
- Sanford Underground Research Facility to lead next generation of geothermal energy research. https://www.newscenter1.tv/news/sanford-underground-research-facility-to-lead-next-generation-of-geothermal-energy-research/article_39752d6e-7825-11ee-b18d-b37d2627640e.html
- South Dakota leads the race to directly detect dark matter, https://www.capjournal.com/news/south-dakota-leads-the-race-to-directly-detect-dark-matter/article_9aef1e24-77f3-11ee-9835-07af705af02e.html
- Yates Shaft wreath a piece of Homestake history https://www.bhpioneer.com/local_news/yates-shaft-wreath-a-piece-of-homestake-history/article_c5385e40-857f-11ee-9c72-9774dd95e341.html
- NationsClassroom visits SURF https://www.bhpioneer.com/local_news/nationsclassroom-visits-surf/article_2f090388-84bd-11ee-94cb-b7d3655654cd.html
- Elevate Rapid City holds key ceremony for new David Lust Accelerator Building tenants https://www.newscenter1.tv/news/elevate-rapid-city-holds-key-ceremony-for-new-david-lust-accelerator-building-tenants/article_7b78766e-8412-11ee-86d1-2f10f9da7854.html
- SURF interns use experience to launch amazing careers, <https://ground.news/article/surf-interns-use-experience-to-launch-amazing-careers>
- SURF celebrates Dark Matter Day, <https://www.bhsumedia.com/news-sports/surf-celebrates-dark-matter-day/>

Information Technology Status

Projects

- Surface deployment of MineStar tagboard displays and PCs were completed.
- SQL and Coldfusion documentation for unique processes were created and sent through ISO Change Control Board Review (CCBR).
- Initial discussion and decision-making concerning SURF Access Request Form (SARF) 2.0 were completed with Johnson Controls and SDSTA department representatives.
- Elevate Rapid City SURF office was set up with five stations including dual monitors, docking stations, and ergonomic keyboard/mouse combos.
- A Password Standard to specify password requirements for the organization was created and sent through CCBR.
- Keeper password manager software was deployed to the organization, as well as ongoing training.
- Outdated IT training was archived and updating training development in progress.
- Quarterly software updates and security patches for all servers were completed.
- The IT team worked with Operations Integrations Supervisor Brooke Anderson to set up IT asset inventory in M+.
- Outdated software and documentation from IT sharedrive were removed, which gained SDSTA an additional 90+GB of space for app06.
- Veeam documentation for troubleshooting Remote Procedure Call (RPC) errors was created and sent through CCBR.

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, Firewall logs, and establishes new VPN and DocuShare accounts for individuals and user groups, as requested.

September – November 2023 Events

- The Visitor Registration Monthly Reports were submitted electronically to the SD Fusion Center/Homeland Security utilizing the SURF database reporting tool. The Monthly SURF Foreign National Visits Reports and Restricted Party Screening Audits were generated and distributed. The Administrative Services team registered 867 visitors from September 1 to November 30. Access badge requests continued to be processed and monthly badging reports distributed.

Number of New Visitors, Users and Contractors On-Site



Administrative Services Activities

- The Administrative Services Team continued to fulfill activities essential to SURF's operations performing support tasks for the SDSTA departments including ISO document conversion. Assistance continued with the coordination of office moves and furniture procurement. Starting in November, Administrative Assistant Ashley Hansen began providing administrative support to the Operations Division. Ashley's position is being backfilled; interviews were conducted in late October and an offer extended and accepted in early November. The candidate backed out in December due to unforeseen circumstances and the position has been reposted. Several SDSTA staff attended a tenant key ceremony at Elevate RC to welcome new tenants over the past year. New tenants at Elevate include SURF, Daktronics, Driven Fire Consultants, KLJ Engineering and Midwest Lithium. Work continues with Multimedia Design Lead Matt Kapust to create a new 'SARF 2.0'. A mid-December meeting is scheduled with Johnson Controls Inc. and SDSTA staff to discuss methods to populate key fields in SURF's new C-CURE 9000 access control system. The SURF Strategic Advisory Committee (SSAC) and Science Program Advisory Committee (SPAC) meetings were supported in September.
- Events and meetings onsite have remained steady through Autumn. The Administrative team provided logistical support for the following:
 - Sept 9 – Educator field trip to SURF, Yates Hoistroom tour
 - Sept 12-14 – SSAC meeting
 - Sept 13 – Black Hills Homeschool Yates Hoistroom tour
 - Sept 18 – Lead/Deadwood 4th grade Yates Hoistroom tour
 - Sept 19 – Great American Insurance site visit
 - Sept 19, 21 & 26 – CAT site visit
 - Sept 21 – Board meetings (SDSTA and Foundation); held at Washington Pavilion in Sioux Falls
 - Sept 25-29 – Eide Bailly auditors
 - Sept 27-29 – SPAC meeting
 - Sept 28 – SD Mines Yates Hoistroom tour
 - Oct 2 – Quarterly EOS Summit meeting; held at Elevate RC
 - Oct 4 – Bennet County field trip to SURF
 - Oct 5 – All Hands at the ROC; Lead-Deadwood 5th grade site visit
 - Oct 6 & 18 – CAT site visit
 - Oct 11 – Wellness Working Group Breast Cancer Awareness Lunch & Learn #1
 - Oct 12 – HVAC pre-bid meeting
 - Oct 13 – CIRCLES Alliance site visit
 - Oct 16-20 & Oct 23-25 – FDC Integration Workshops
 - Oct 18 – Stevens High School Yates Hoistroom tour; BHSU ED undergraduates Yates Hoistroom tour
 - Oct 19 – Western Area Power Administrators site visit; Upper Great Plains Region site visit; Chamberlain High School Yates Hoistroom tour
 - Oct 20 – Wizipan site visit, WWTP tour; Custodial pre-bid meeting
 - Oct 23 – Wellness Working Group Breast Cancer Awareness Lunch & Learn #2; SD EPSCoR Yates Hoistroom tour
 - Oct 31 – Communications Department coffee break/Halloween Chili Cook-off

- Nov 6-8 – ESHAC meeting
 - Nov 7, 14 & 16 – CAT site visit
 - Nov 8-9 – Nations Classroom site visit
 - Nov 15 – Wellness Working Group coffee break
 - Nov 16 – Čanglěška Wakhán, the Ethnobotanical Garden ‘Lunch & Learn’ session
 - Nov 23 – Thanksgiving meal provided for SDSTA crews working onsite; catered by Cheyenne Crossing
- The SDSTA Board of Directors quarterly meeting was held on September 21, 2023. Board materials and meeting minutes were posted to the Boards & Commissions portal. The SDSTA and SURF Foundation board meetings were hosted in Sioux Falls at the Washington Pavilion in conjunction with a ribbon cutting for the SURF-sponsored water exhibit at the facility. Preparations began for the next quarterly meetings on December 14 to be held at Elevate Rapid City. SURF will be hosting a Nobel Day celebration at Elevate RC from 5pm to 7pm.
 - The Executive Leadership team is preparing for upcoming events in January and include the following: the Cultural Advisory Committee meeting on January 11, Entrepreneurial Operating System (EOS) summit with Consultant Mike Roth on January 16, 2024 and All Hands Meeting on January 24, 2024. Logistics planning began for the 2024 Center for Theoretical Underground Physics and Related Areas* (CETUP*) topical workshops in Lead to be held June 17- July 19, 2024.

SANFORD LAB HOMESTAKE VISITOR CENTER

Sanford Lab Homestake Visitor Center (SLHVC) Status

Outreach and Programming

- SLHVC saw an increase in bus traffic this year, with 139 buses bringing guests from all over the world.
- Partnering with the South Dakota Humanities Council, the SLHVC hosted One Book South Dakota author, Diane Wilson, for a presentation and book signing event. In preparation, SLHVC and IDEA teams lead a book study and discussion, attended by SURF employees and community members.
- SLHVC worked with the Lead Area Chamber of Commerce to host a six-week Small Business Basics Course for aspiring business owners, new business owners, or seasoned business owners who want to focus on building their business through SDSU Extension.
- E&O utilized the SLHVC for their fall field trip experiences. One of the largest was another visit from Nation's Classroom, which brought approximately 150 junior high students from Orange County, CA to SLHVC over two days.
- SLHVC has been home to the SURF Artists-in-Residence special exhibit, and hosted a well-attended reception for and presentation by artists Nicholas Kahn and Richard Selesnick in October.
- The 2023-2024 Deep Talks season began in October for Dark Matter Day, and speakers are scheduled fully for the season.
- In collaboration with community partners, the SLHVC hosted another successful Trunk or Treat, welcoming over 400 guests.
- The Science and Outreach and Culture teams ensured a successful Road Scholar season through weekly presentations from May through September, sharing the story of SURF with over 400 individuals.
- The SLHVC has worked with other departments at SURF to host: trainings for CAT and SURF electricians, Lead city strategic planning meetings, the West River History Conference, socials for Women in Mining and the South Dakota School Age Care Alliance (SoDakSACA), and tours for Leadership SD, SD Agriculture and Natural Resources, Western Area Power, and SD Bureau of Information Technology.
- In September, the SLHVC hosted the Lead High School Class of 1973 50th class reunion, which brought in over 90 people to the facility.
- IDEA has utilized the classroom space to host 'Lunch and Learns' at the SLHVC.
- A cohort was formed with individuals from Communications, IDEA, and the SLHVC to attend iPAGE, an NSF-funded training through the Science Museum of Minnesota, focusing on equity, inclusion, and access work in informal science institutions, such as the SLHVC.
- Outreach and Culture Director Deb Wolf and SLHVC Kelly Kirk gave the Preservation Thursday presentation for Deadwood History Inc., in November, giving the history and science behind the Davis experiment.
- The SLHVC and SURF teams worked together to craft a unique contribution to the Homestake Opera House's Festival of Trees.
- Gross sales at the museum store increased by 17% YTD.
- The museum store has participated in Lead's Fall Crawl and Shop Local events.

SURF FOUNDATION
501(c)(3)

SURF Foundation Status

Work Accomplishments

- Establishment of The Institute
 - The Institute Overview was presented at a ‘Lunch and Learn’ session for SDSTA staff, increasing internal awareness and support.
 - The Institute Program Manager job description was developed, and initial candidate interviews completed. Final interviews have been scheduled for December 8.
 - Planning continues for the Nobel Day Celebration event on December 14, 2023 at Elevate Rapid City, which will serve as the public launch of the Institute.
 - Planning for the Center for Underground Theoretical Physics *and Related Areas (CETUP*) 2024 is in progress, set to begin on June 17, 2024, with an estimated budget of \$120,000. The Foundation is responsible for managing the event on the Indico website, organizing logistics, and fundraising.
 - The QuarkNet workshop (K-12 teacher training) was confirmed and will be hosted by the Institute in 2024 on a to-be-determined date, without requiring additional funding.
- Progress of the Čanglěška Wakħáj Project
 - RCS has completed the construction of the Garden, which has received positive feedback. It looks amazing!
 - The Foundation is actively refining its strategic messaging and seeking funding, exploring potential grants.
 - The IDEA team updated the Garden copy on the SURF website to enhance its visibility and provide more information.
- Grants and Event Planning
 - A TAP Tourism Grant application was submitted to the Governor’s Office of Economic Development (GOED) and report writing was completed for the Vucurevich grant that supported the 2023 Teacher Professional Development.
 - Initial planning stages for Neutrino Day 2024 and the Legislative Session Evening Mixer in Pierre are underway, focusing on the scope, budget, and scale of these events.
- Donor / Potential Donor Communications
 - Updates were provided to Master Gardeners about volunteering opportunities for 2024.
 - Preparation materials for Foundation Board Member Aurelia Giacometto’s visit to Virginia Tech was completed, followed by hosting subsequent meetings.
 - Educational initiatives were discussed in a meeting with Dakota Gold.
- Outreach and Public Affairs Activities
 - The Foundation has maintained a strong presence in multiple forums, including the SD Biotech Conference and various local chamber and economic development events.
 - The Foundation hosted the Leadership South Dakota 2024 class and participated in various presentations as well as judged for the Big Idea Competition with the Small Business Development Center in Aberdeen.
- Continuing Education
 - Ongoing professional development is being prioritized, with training in project management tools, donor databases, and SURF's internal platforms.
 - Building and maintaining relationships with donors remains a key focus for sustained engagement and support.
- Foundation Processes
 - The Foundation has complied with the submission of Form 990 reporting documents.
 - A review of Foundation bylaws with Board Vice-Chair Beth Massa confirmed the current operational structure, with no changes needed at this time.
 - A preparatory meeting with Board Chair Julie Olson for the December board meeting and planning for 2024 was conducted.

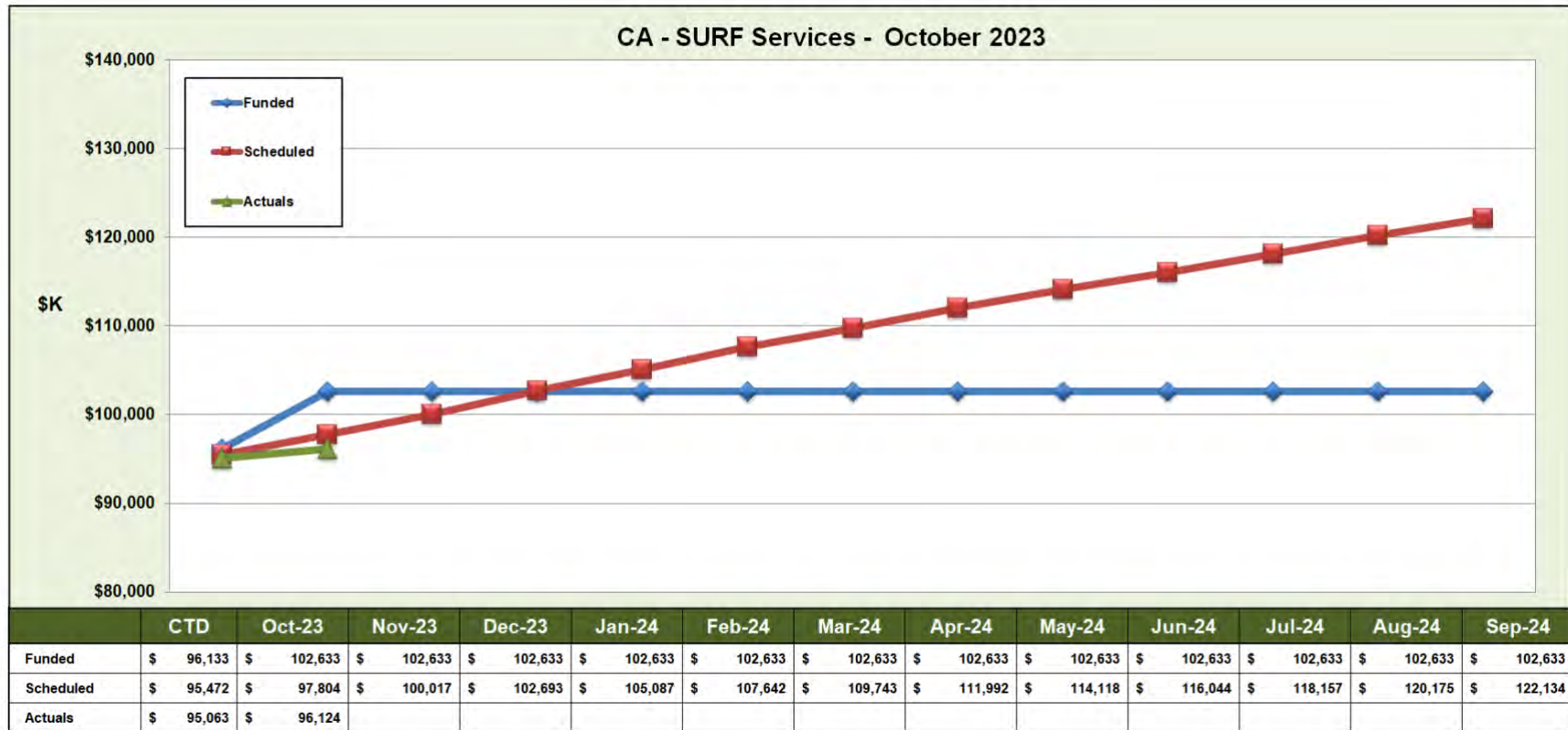
- The first Foundation Roundtable was held to discuss board roles and fundraising tools.
- The Labyrinth charitable updates and the launch of the Internal SURF Donation Committee are notable enhancing the Foundation's outreach and internal collaboration.

Grants and Highlighted Donations Received

- A \$2,500 grant from Black Hills Energy was received, allocated towards enhancing visitor engagement with a Multimedia Screen at the SLHVC, with an additional \$10,000 expected in the first quarter of 2024.
- Private donations included \$3,500 for the Garden, \$2,500 each for the Davis-Bahcall Scholars program and Internships, and \$5,000 for the monthly Deep Talks outreach events.

APPENDIX

**Business Services Department
Appendix A**



DOE SDSTA Fiscal Year 2024 SPA Curve

Appendix B - October Financial Statements

REPORT DATE 11/14/2023

SOUTH DAKOTA SCIENCE & TECHNOLOGY

PAGE 0001

DIVISION: ALL

BALANCE SHEET

ASSETS

		AS OF 10/31/23
CURRENT ASSETS		
First Interstate Checking	\$	4,488,663.35

Total in Local Checking		4,488,663.35
SD Treas: Indemnification		7,500,000.00
SD Treas: Mine Closure		1,567,504.94
SD Treas: Operating		1,643,238.62
SD Treas: SB35 Appropriation		12,209,159.91
SD Treas: Experiments		589,786.61

Total with SD Treasurer		23,509,690.08
Billed A/R		1,140,888.12
Unbilled A/R		1,064,845.05
Other A/R		455,779.23
Inventory - Supplies		3,273,639.33
Inventory - Warehouse		512,122.02
Other Current Assets		1,111,852.00

Total Current Assets		35,557,479.18
FIXED ASSETS		
Land, Underground & Other		12,743,473.13
Bldgs & Infrastructure		19,145,674.12
Improvements		62,806,546.32
Work in Progress		6,192,248.18
Computer Equipment		366,435.18
Equipment & Fixtures		10,262,978.28
DOE Property Transfer		9,061,615.87
Accum Depr & Amort		(23,992,651.69)
DOE Prop. Accum Deprec.		(1,100,650.01)

Total Fixed Assets		95,485,669.38
OTHER ASSETS		
Asset Retirement Obligation Deferred Outflows		1,129,637.92
Asset Retirement Obligation Accumulated Depr.		(37,654.60)
Pension Deferred Outflows		5,823,104.49
Xenon Purchased		8,687,833.46

Total Other Assets		15,602,921.27
		=====
TOTAL ASSETS	\$	146,646,069.83
		=====

DIVISION: ALL

BALANCE SHEET

LIABILITIES & EQUITY

		AS OF 10/31/23
		<hr/>
CURRENT LIABILITIES		
Accounts Payable	\$	1,338,473.32
Other Payables		5,887.12
		<hr/>
Total Accounts Payable		1,344,360.44
Accrued Payroll Liab		2,299,890.52
		<hr/>
Total Current Liabilities		3,644,250.96
OTHER LIABILITIES		
LT Xenon Notes Payable		3,121,190.01
Pension Deferred Inflows		3,447,916.22
Asset Retirement Obligation		1,196,884.99
		<hr/>
Total Other Liabilities		7,765,991.22
EQUITY		
Restricted: Indemnification		7,500,000.00
Restricted: SB35 Appropriation		12,209,159.91
Restricted: Mine Closure		1,567,504.94
Restricted: Pension		2,375,188.27
Restricted: Experiment. Int.		589,786.61
		<hr/>
Total Restricted Funds		24,241,639.73
Investment in Gen FA		95,485,669.38
Unrestricted Funds		15,508,518.54
		<hr/>
Total Equity		135,235,827.65
		<hr/>
TOTAL LIABILITIES & EQUITY	\$	146,646,069.83
		<hr/>

ALL

STATEMENT OF INCOME

FOR THE PERIOD ENDING 10/31/2023

	YR-TO-DATE
	<hr/>
REVENUE	
DOE Subcontracts	\$ 13,199,426.20
Checking Interest	2,920.75
Interest Income	107,052.33

TOTAL REVENUE	13,309,399.28
DIRECT COSTS	
Direct Labor	3,224,108.58
Board of Directors	3,440.70
Capital Outlay >\$5K	1,155,180.01
Contractual Svcs	3,444,509.55
Inventory	96,994.35
Supplies	600,874.99
Travel - Domestic	83,069.53
Travel - Foreign	12,419.28
Utilities	571,639.91
Other Direct Costs	39,787.78
Unallow/Unbill Costs	127,019.91

TOTAL DIRECT COSTS	9,359,044.59
INDIRECT COSTS	
Fringe Benefits	2,707,914.60
Overhead	3,658,221.56

TOTAL INDIRECT COSTS	6,366,136.16

GROSS PROFIT/LOSS ()FROM OPERATIONS	(2,415,781.47)

OTHER INCOME	
Water Treatment	116,545.72
Miscellaneous Income	16,895.71
Other Operating Income	94,244.25

TOTAL OTHER INCOME	227,685.68
OTHER EXPENSES	
Misc. Expenses & Donations	(1,751,756.84)
Loss (Gain) on Sale of FA	15,432.62
Other Unallowable Expense	192,029.38
Reclass Incr Net Assets	(874,151.84)

TOTAL OTHER EXPENSES	(2,418,446.68)
	=====
NET INCOME/LOSS ()	\$ 230,350.89
	=====

DIVISION: ALL

COMPARATIVE BALANCE SHEET

ASSETS

	AS OF 10/31/23	AS OF 10/31/22	\$ CHANGE	% CHANGE
<hr/>				
CURRENT ASSETS				
First Interstate Checking	\$ 4,488,663.35	\$ 4,404,916.06	\$ 83,747.29	1.90%
First Interstate Other	-	-	-	0.00%
<hr/>				
Total in Local Checking	4,488,663.35	4,404,916.06	83,747.29	1.90%
SD Treas: Indemnification	7,500,000.00	7,500,000.00	-	0.00%
SD Treas: Mine Closure	1,567,504.94	1,533,566.14	33,938.80	2.21%
SD Treas: Operating	1,643,238.62	1,386,598.52	256,640.10	18.51%
SD Treas: SB35 Appropriation	12,209,159.91	-	12,209,159.91	100.00%
SD Treas: Experiments	589,786.61	688,574.72	(98,788.11)	-14.35%
<hr/>				
Total with SD Treasurer	23,509,690.08	11,108,739.38	12,400,950.70	111.63%
Billed A/R	1,140,888.12	2,192,734.90	(1,051,846.78)	-47.97%
Unbilled A/R	1,064,845.05	913,285.18	151,559.87	16.60%
Other A/R	455,779.23	317,158.46	138,620.77	43.71%
Inventory - Supplies	3,273,639.33	3,237,428.11	36,211.22	1.12%
Inventory - Warehouse	512,122.02	403,205.27	108,916.75	27.01%
Other Current Assets	1,111,852.00	738,012.37	373,839.63	50.65%
<hr/>				
Total Current Assets	35,557,479.18	23,315,479.73	12,241,999.45	52.51%
<hr/>				
FIXED ASSETS				
Land, Underground & Other	12,743,473.13	12,743,473.13	-	0.00%
Bldgs & Infrastructure	19,145,674.12	19,321,800.42	(176,126.30)	-0.91%
Improvements	62,806,546.32	62,813,135.62	(6,589.30)	-0.01%
Work In Progress	6,192,248.18	4,079,796.90	2,112,451.28	51.78%
Computer Equipment	366,435.18	381,499.81	(15,064.63)	-3.95%
Equipment & Fixtures	10,262,978.28	10,698,424.57	(435,446.29)	-4.07%
DOE Property Transfer	9,061,615.87	6,361,708.97	2,699,906.90	42.44%
Accum Depr & Amort	(23,992,651.69)	(22,140,913.42)	(1,851,738.27)	8.36%
DOE Prop. Accum Deprec.	(1,100,650.01)	(640,662.10)	(459,987.91)	71.80%
<hr/>				
Total Fixed Assets	95,485,669.38	93,618,263.90	1,867,405.48	1.99%
<hr/>				
OTHER ASSETS				
Asset Retirement Obligation Deferred Outflows	1,129,637.92	1,129,637.92	-	0.00%
Asset Retirement Obligation Accumulated Depr.	(37,654.60)	-	(37,654.60)	100.00%
Pension Deferred Outflows	5,823,104.49	11,243,668.96	(5,420,564.47)	-48.21%
Xenon Purchased	8,687,833.46	8,934,350.39	(246,516.93)	-2.76%
<hr/>				
Total Other Assets	15,602,921.27	21,307,657.27	(5,704,736.00)	-26.77%
<hr/>				
TOTAL ASSETS	\$ 146,646,069.83	\$ 138,241,400.90	\$ 8,404,668.93	6.08%
<hr/>				

DIVISION: ALL

COMPARATIVE BALANCE SHEET

LIABILITIES & EQUITY

	AS OF 10/31/23	AS OF 10/31/22	\$ CHANGE	% CHANGE
CURRENT LIABILITIES				
Accounts Payable	\$ 1,338,473.32	\$ 1,023,533.75	314,939.57	30.77%
Other Payables	5,887.12	1,352.52	4,534.60	335.27%
	-----	-----	-----	-----
Total Accounts Payable	1,344,360.44	1,024,886.27	319,474.17	31.17%
Accrued Payroll Liab	2,299,890.52	2,288,020.44	11,870.08	0.52%
	-----	-----	-----	-----
Total Current Liabilities	3,644,250.96	3,312,906.71	331,344.25	10.00%
OTHER LIABILITIES				
LT Xenon Notes	3,121,190.01	6,000,000.00	(2,878,809.99)	-47.98%
Pension Deferred Inflows	3,447,916.22	9,300,127.02	(5,852,210.80)	-62.93%
Asset Retirement Obligation	1,196,884.99	1,129,637.92	67,247.07	5.95%
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Total Other Liabilities	7,765,991.22	16,429,764.94	(8,663,773.72)	-52.73%
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TOTAL LIABILITIES	11,410,242.18	19,742,671.65	(8,332,429.47)	-42.21%
EQUITY				
Restricted: Indemnificati	7,500,000.00	7,500,000.00	-	0.00%
Restricted: SB35 Appropriation	12,209,159.91	-	12,209,159.91	100.00%
Restricted: Mine Closure	1,567,504.94	1,533,566.14	33,938.80	2.21%
Restricted: Pension	2,375,188.27	1,943,541.94	431,646.33	22.21%
Restricted: Experim. Int.	589,786.61	688,574.72	(98,788.11)	-14.35%
Restricted: Foundation	-	-	-	0.00%
	-----	-----	-----	-----
Total Restricted Funds	24,241,639.73	11,665,682.80	12,575,956.93	107.80%
Investment in Gen FA	95,485,669.38	93,618,263.90	1,867,405.48	1.99%
Unrestricted Funds	15,508,518.54	13,214,782.55	2,293,735.99	17.36%
	-----	-----	-----	-----
TOTAL EQUITY	135,235,827.65	118,498,729.25	16,737,098.40	14.12%
	=====	=====	=====	=====
TOTAL LIABILITIES & EQUITY	\$ 146,646,069.83	\$ 138,241,400.90	\$ 8,404,668.93	6.08%
	=====	=====	=====	=====

COMPARATIVE STATEMENT OF INCOME

FOR THE PERIOD ENDING 10/31/23

	YEAR TO DATE	PRIOR YEAR TO DATE	\$ CHANGE	% CHANGE
REVENUE				
DOE Subcontracts	\$ 13,199,426.20	\$ 12,246,227.95	\$ 953,198.25	7.78%
Checking Interest	2,920.75	3,237.26	(316.51)	-9.78%
Interest Income	107,052.33	37,006.35	70,045.98	189.28%
	-----	-----	-----	-----
TOTAL REVENUE	13,309,399.28	12,286,471.56	1,022,927.72	8.33%
DIRECT COSTS				
Direct Labor	3,224,108.58	3,030,606.08	193,502.50	6.38%
Board of Directors	3,440.70	2,293.12	1,147.58	50.04%
Capital Outlay >\$5K	1,155,180.01	1,877,857.54	(722,677.53)	100.00%
Contractual Svcs	3,444,509.55	1,287,739.26	2,156,770.29	167.49%
Inventory	96,994.35	119,965.90	(22,971.55)	-19.15%
Supplies	600,874.99	299,706.40	301,168.59	100.49%
Travel - Domestic	83,069.53	32,077.04	50,992.49	158.97%
Travel - Foreign	12,419.28	1,385.42	11,033.86	796.43%
Utilities	571,639.91	663,124.03	(91,484.12)	-13.80%
Other Direct Costs	39,787.78	102,723.42	(62,935.64)	-61.27%
Unallow/Unbill Costs	127,019.91	166,409.10	(39,389.19)	-23.67%
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TOTAL DIRECT COSTS	9,359,044.59	7,583,887.31	1,775,157.28	23.41%
INDIRECT COSTS				
Fringe Benefits	2,707,914.60	2,226,991.72	480,922.88	21.60%
Overhead	3,658,221.56	3,594,057.24	64,164.32	1.79%
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TOTAL INDIRECT COSTS	6,366,136.16	5,821,048.96	545,087.20	9.36%
	-----	-----	-----	-----
GROSS PROFIT/LOSS ()	(2,415,781.47)	(1,118,464.71)	(1,297,316.76)	517.81%
	-----	-----	-----	-----
OTHER INCOME				
Water Treatment	116,545.72	100,304.86	16,240.86	16.19%
Miscellaneous Income	16,895.71	23,393.74	(6,498.03)	-27.78%
Other Operating Income	94,244.25	5,787.04	88,457.21	1528.54%
	-----	-----	-----	-----
TOTAL OTHER INCOME	227,685.68	129,485.64	98,200.04	75.84%
OTHER EXPENSES				
Misc. Expenses & Donations	(1,751,756.84)	(147,978.01)	(1,603,778.83)	1083.80%
Loss (Gain) on Sale of FA	15,432.62	13,772.61	1,660.01	12.05%
Other Unallowable Expense	192,029.38	129,270.10	62,759.28	48.55%
Reclass Incr Net Assets	(874,151.84)	(781,661.41)	(92,490.43)	11.83%
	-----	-----	-----	-----
TOTAL OTHER EXPENSES	(2,418,446.68)	(786,596.71)	(1,631,849.97)	207.46%
	=====	=====	=====	=====
NET INCOME/LOSS ()	\$ 230,350.89	\$ (202,382.36)	\$ 432,733.25	-213.82%
	=====	=====	=====	=====

South Dakota Science & Technology Authority
Available Resources
10/31/2023

Cash Total Checking	\$ 4,488,663
Cash With State Treasurer	<u>\$ 23,509,690</u>
Total Cash	\$ 27,998,353
Less: Restricted Funds	
Indemnification/Mine Closure	\$ (9,067,505)
SB35 Appropriation	\$ (12,209,160)
Experiments (Xenon, Interest,Infrastructure)	<u>\$ (589,787)</u>
Total Cash Available for Infrastructure Upgrades and Authority Operations	\$ 6,131,902
Plus: Accounts Receivable Billed	\$ 1,140,888
Accounts Receivable Unbilled	\$ 1,064,845
Less: Current Liabilities (Accounts Payable & Accrued Payroll)	\$ (3,644,251)
Available Cash and Receivables	<u><u>\$ 4,693,384</u></u>

SDSTA Operating Budget Summary FY2024

Actual vs Budget
October 2023 & YTD

	October 2023	Budget	\$ Over/Under Budget	% of Budget	Actual YTD	YTD Budget	\$ Over/Under Budget	% of Budget	% Remaining
									100%
SDSTA (Authority) Direct Charges									
Board of Directors	\$1,643	\$1,500	(\$143)	109.53%	\$3,584	\$6,000	\$2,416	59.73%	40.27%
Executive Office	\$84,882	\$99,185	\$14,303	85.58%	\$400,779	\$458,664	\$57,885	87.38%	12.62%
Science Center E & O	\$2,330	\$300	(\$2,030)	776.67%	\$93,523	\$80,800	(\$12,723)	115.75%	-15.75%
SURF Foundation	\$16,820	\$24,596	\$7,776	68.39%	\$73,483	\$112,392	\$38,909	65.38%	34.62%
Science Liaison	\$1,404	\$0	(\$1,404)	100.0%	\$2,099	\$0	(\$2,099)	NA	NA
SLHVC (Visitor Center)	\$32,976	\$45,600	\$12,624	72.32%	\$184,263	\$228,164	\$43,901	80.76%	19.24%
Subtotal	\$140,055	\$171,181	\$31,126	81.82%	\$757,731	\$886,020	\$128,289	85.52%	14.48%
Federal/State Funding - Direct Charges									
Fermi C#671265 Prof. St.Services	\$8,440	\$10,910	\$2,470	77.36%	\$28,051	\$43,640	\$15,589	64.28%	35.72%
Fermi C#685922 Op Serv Support	\$0	\$0	\$0.00	0.0%	\$0	\$0	\$0.00	0.00%	100.00%
Fermi C#674969 Ross Logist.Supp.	\$223,604	\$282,106	\$58,502	79.26%	\$1,667,473	\$1,948,173	\$280,700	85.59%	14.41%
Office of Science Coop.Agree	\$465,841	\$1,146,823	\$680,982	40.62%	\$4,750,866	\$6,226,492	\$1,475,626	76.30%	23.70%
Office of Science IIP Projects	\$1,041,466	\$1,041,466	\$0	100.0%	\$2,319,358	\$2,319,358	\$0	0.00%	0.00%
LBNL LZExp.Operat.C#7650068 & DE-SC0022857	\$49,847	\$51,343	\$1,496	97.09%	\$218,521	\$205,372	(\$13,149)	106.40%	-6.40%
MJD (Majorana) ORNL144149 & SDSM&T CT001412	\$1,582	\$2,035	\$453	77.74%	\$8,581	\$8,140	(\$441)	105.42%	-5.42%
* Kiewit/Thyssen/DakotaT.	\$1,525	\$1,525	\$0.00	100.0%	\$6,100	\$6,100	\$0.00	100.00%	0.00%
* Caterpillar Inc.	\$0	\$0	\$0.00	0.0%	\$0	\$0	\$0.00	0.00%	100.00%
RESPEC Thermal Breakout	\$0	\$83	\$83	0.0%	\$0	\$333	\$333	0.00%	100.00%
Subtotal	\$1,792,305	\$2,536,291	\$743,986	70.67%	\$8,998,950	\$10,757,608	\$1,758,658	83.65%	16.35%
Indirect Expenses									
Indirect Charges Personnel	\$431,814	\$607,330	\$175,516	71.10%	\$1,839,919	\$2,360,879	\$520,960	77.93%	22.07%
Indirect Charges Other	\$533,722	\$560,007	\$26,285	95.31%	\$2,074,000	\$2,266,111	\$192,111	91.52%	8.48%
Subtotal	\$965,536	\$1,167,337	\$201,801	82.71%	\$3,913,919	\$4,626,990	\$713,071	84.59%	15.41%
Totals	\$2,897,896	\$3,874,809	\$976,913	74.79%	\$13,670,600.00	\$16,270,618.00	\$2,600,018	84.02%	15.98%
* Private Corporations (Commercial Group)									

Communications Department Photo Appendix C



Top left: Children and families enjoy the new water table at the Washington Pavilion in Sioux Falls sponsored by SURF.

Top right: Ashley Armstrong interacts with a curious, young scientist during SURF Day at the Washington Pavilion.

Center left: The Sanford Lab Homestake Visitor Center (SLHVC) hosted a Truck-or-Treat—moved indoors, due to weather—for the local community.

Center right: The working wellness group presented a check for over \$11,000 to the Foundation for Health after the annual breast cancer awareness employee fundraiser.

Bottom right: Mike Ray points out features on the mine model at the SLHVC to the Leadership South Dakota group.



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SDSTA Policies—Mr. Mike Headley

Attached is the following updated SDSTA policy reviewed by legal counsel and recommended for approval:

- Section 3 “Business and Finance” of the SDSTA Manual:
 - Records Retention Policy (*updated*)

Recommended Action:

Motion to approve the updated Records Retention Policy as presented.

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A. Statement

In accordance with the Integrated Management System (IMS), federal, state and contractual obligations, the South Dakota Science and Technology Authority (SDSTA) will retain limited administrative, environmental, safety and health records according to the following tables:

Administrative

Type of Record	Retention Period
Accident report/claims (only settled cases) <u>Workers Compensation</u>	10 years <u>Indefinitely during employment & 10 years after termination</u>
Accounts payable checks and vouchers (copies)	10 <u>7</u> years
Accounts payable ledgers and schedules	10 <u>7</u> years
Accounts receivable ledgers and schedules	10 <u>7</u> years
Audit reports	Indefinitely
Bank reconciliations	2 <u>7</u> years
Bank statements	3 <u>7</u> years
Cash books	Indefinitely <u>7 years</u>
Contracts	10 <u>Destroy 10 years after termination</u>
Correspondence (only regarding legal and important matters)	Indefinitely
Deeds, mortgages and bills of sales	Indefinitely
Depreciation schedules	Indefinitely <u>7 years</u>
Employment applications	5 years
Employee timesheets	10 <u>7</u> years

Financial statements (only year-end)	Indefinitely
Foreign Nationals Identifications – Badged Users and Contractors	7 years after end of fiscal year
Garnishments	10 <u>7</u> years
Government-furnished property (only equipment over \$5K)	3 <u>7</u> years
Indirect cost rate proposals	3 years from date of submission <u>Indefinitely</u>
Insurance policies (expired)	7 <u>10</u> years
Insurance records, current accident reports, claims policies, etc. <u>Accident Reports/Claims Files – Non-Workers Compensation</u>	Indefinitely <u>10 years after resolution or accident, whichever is longer</u>
Inventories of products, materials, supplies	10 <u>7</u> years
Invoices (only to customers and from vendors)	10 <u>7</u> years
Journals	Indefinitely <u>7 years</u>
Minute books of directors	Indefinitely
Payroll records and summaries	10 <u>7</u> years
Personnel files	Indefinitely during employment and 10 years after termination
Petty cash vouchers	3 <u>7</u> years
Property appraisals by outside appraisers	Indefinitely
Purchase orders	3 <u>7</u> years
Receiving sheets	3 <u>7</u> years

Retirement and pension records	Indefinitely
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Requisitions	3 <u>7</u> years
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Scrap and salvage records	10 <u>7</u> years
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Visitor daily check-in logs and monthly registration logs	5 years
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Voucher register and schedules	10 <u>7</u> years
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Environmental

Type of Record	Retention Period
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Biological Reports (only Whole Effluent Toxicity and Stream test results) [National Pollution Discharge Elimination System (NPDES) Permit 0000043]	5 years
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Clean Air Act emission test results [40 Code of Federal Regulations (CFR) 61.33]	4 years
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Clean Air Act monitoring data and performance tests [40 CFR 61.14]	4 years
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Clean Air Act permits [40 CFR 70.6 (9a)(3)]	5 years
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Environmental Protection Agency (EPA) underground injection permits [40 CFR 144.12]	Indefinitely
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Emergency Planning and Community Right-to-know Act (EPCRA) Tier II Reports [40 CFR 370.25 (d)]	4 years
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Hazardous waste exception reports [40 CFR 262.40]	4 years
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Hazardous waste inspection results [40 CFR 262.40]	4 years
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Hazardous waste manifests [40 CFR 262.40]	4 years
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Hazardous waste training records [40 CFR 262.40]	4 years
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Land Disposal Restrictions (LDR) waste analysis and documentation [40 CFR 370.25 (d)]	5 years
NPDES monitoring records (DMRs) [40 CFR 122.41]	4 years
NPDES permit application records [40 CFR 122.21]	5 years
NPDES storm water records [40 CFR 216.29]	5 years
Polychlorinated Biphenyl (PCB) manifests and logs (only after final disposal) [40 CFR 761.209]	4 years
Spill Prevention, Control and Countermeasure (SPCC) plans and inspection records [40 CFR 112.7]	4 years
Storm water construction permits [by permit]	Indefinitely
Waste test results [40 CFR 262.40]	4 years
Wastewater Treatment Plant (WWTP) monitoring data and calibration check [40 CFR 61.14]	4 years
All other permits	Indefinitely

Safety and Health

Type of Record	Retention Period
Employee Training Records	Retain for duration of employment plus 3 years
Industrial Hygiene (IH)	Indefinitely
Medical Records (only related to workers' compensation)	Indefinitely
OSHA 300 Logs	5 years
Risk Waivers (2) - "Acknowledgment of Risk" and "Release, Agreement Not to Sue and Waiver"	Indefinitely

Quality

<u>Type of Record</u>	<u>Retention Period</u>
<u>Title 1, alphabetical order please Audits</u>	<u>Indefinitely Retain for duration of ISO System plus 5 years</u>
<u>Title 2 Audits Schedules</u>	<u>Indefinitely 5 years</u>
<u>Title 3 Change Control Requests Approvals</u>	<u>Indefinitely 5 years</u>
<u>Title 4 Environmental Aspect/Impact FEMA</u>	<u>Indefinitely Retain for duration of ISO System plus 5 years</u>
<u>Title 5 Gauge Calibrations</u>	<u>Indefinitely Retain for duration of ISO System plus 5 years</u>
<u>IMS Objectives Planning</u>	<u>5 years</u>
<u>Management Review Reports</u>	<u>5 years</u>
<u>Nonconformances (NCs) & Corrective Actions (CAs)</u>	<u>Retain for duration of ISO System plus 5 years</u>
<u>Safety and Support Perception Survey</u>	<u>5 Years</u>
<u>Work Participation and Consultation FMEA</u>	<u>Retain for duration of ISO System plus 5 years</u>

IMS

Records created from controlled documents shall be retained in accordance with QA/QC-(1000-S)-176565 Document Change Control Standard as in effect on June 22, 2023. In the event of an ambiguity or discrepancy between the terms of this policy and the terms of the Document Change Control Standard, the express terms of this policy shall govern.

B. Purpose

Records retention is essential for SDSTA operations and compliance.

C. Related Policies and Procedures

- Confidentiality Policy
- Employment Records and Personal Data Policy-Procedure

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Lobbyist Registration—Mr. Tim Engel

Lobbyist registration discussion.

Ms. Mandy Knight shall register SDSTA public lobbyists for the 2024 Legislative Session via the South Dakota Secretary of State website.

See recommended motion below.

Recommended Action:

Motion to designate Mr. Mike Headley, Mr. Casey Peterson, Mr. Tim Engel and Mr. Doug Abraham as lobbyists for the SDSTA for the 2024 Legislative Session.

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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—SDCL 1-25-2(1), (3) and (4); 19-19-502.

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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, March 21, 2024 beginning at 8:00 AM (Mountain Time).

2024 Regular Quarterly Board Meeting Schedule 8:00 AM (Mountain Standard Time)
Thursday, March 21
Thursday, June 20—Annual Mtg
Thursday, September 19
Thursday, December 12

*South Dakota Science and Technology Authority / Sanford Underground Research Facility
Education & Outreach Building (large conference room and zoom)
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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Public Comments—Chairperson Casey Peterson

- Reminder to ask guests who did not identify themselves at the beginning of the meeting to do so at this time.
- Discuss any public comment request forms submitted.

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Board Comments—Chairperson Casey Peterson

1. Dr. Ani Aprahamian
2. Mr. Dana Dykhous, Vice-Chairperson
3. Dr. Chris Fall
4. Ms. Pat Lebrun, Secretary-Treasurer
5. Mr. Roger Musick
6. Mr. Ron Wheeler
7. Dr. Laurie Nichols, Ex-officio member
8. Dr. Jim Rankin, Ex-officio member
9. Mr. Casey Peterson, Chairperson

Recommended Action:
Informational.

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Adjourn—Chairperson Casey Peterson

See recommended motion below.

Recommended Action:

Motion to adjourn.

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