

South Dakota Science and Technology Authority

**Board Meeting
March 21, 2024**



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
President Steve Elliott/BHSU, ex-officio member
President James Rankin/SD Mines, 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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Procedure for Public Comment and Form

South Dakota Science and Technology Authority

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Adopted June 28, 2018

Full Name:

City of Residence:

General Subject Matter of Comments:

Approve Agenda—Chairperson Casey Peterson

Attached is the SDSTA Board agenda for the March 21, 2024 meeting.

See recommended motion below.

Recommended Action:

Motion to approve agenda as presented.

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AGENDA
South Dakota Science and Technology Authority
630 East Summit Street, Lead, South Dakota
Meeting of the Board of Directors
Thursday, March 21, 2024 at 8:00 AM (MT)
****Yates Education & Outreach Conference Room****

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

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 mute your phone after joining.

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

Title	Report	Recommendations
1. Call to order A. Call roll B. Introduce guests C. Submit 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	<i>Motion to approve agenda</i>
3. Approve minutes	-- Chair Casey Peterson	<i>Motion to approve the December 14, 2023 minutes</i>
4. Conflict of interest disclosure	-- Mr. Tim Engel	<i>Informational</i>
5. Conflict of interest disclosure and waiver under SDCL CH. 3-23	-- Mr. Tim Engel	<i>“Motion to approve or deny” (as appropriate)</i>
6. Report from Audit Committee A. Acceptance of Audit Report-fiscal year ended June 30, 2023 discussion	-- Ms. Pat Lebrun	<i>6A. Motion to accept Audit Report Fiscal Year Ended June 30, 2023 as reviewed and discussed at December 14, 2023 board meeting</i>
7. Financial Report update	-- Mr. Terry Miller	<i>Motion to accept financial report as presented</i>
8. SURF Foundation update	-- Ms. Michelle Kane	<i>Informational</i>

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

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Title	Report	Recommendations
9. Report from Executive Director	-- Mr. Mike Headley	
A. SDSTA quarterly update		<i>Informational</i>
B. 4850L expansion construction update	-- Mr. Al Stratman	<i>Presentation</i>
C. LBNF/DUNE update	-- Mr. Joshua Willhite	<i>Presentation</i>
		<i>Motion to accept executive director's report</i>
10. Select Nominating Committee	-- Chair Casey Peterson	<i>Chairperson to appoint members of nominating committee for election of officers at annual meeting</i>
11. 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>
12. Report from executive session	-- Chair Casey Peterson	<i>"The board consulted with legal counsel concerning contractual and legal matters. No action was taken."</i> <i>OR</i> <i>...as discussed and stated otherwise</i>
13. Approve Risk Transfer Protocols	-- Mr. Tim Engel	<i>Motion to approve the updated Risk Transfer Protocols Manual</i>
14. Confirm date and time of next meeting	-- Chair Casey Peterson	<i>Thursday, June 20, 2024 at 8:00am (MT)—annual meeting held in SURF's E&O large conference room</i>
15. Public comments	-- Chair Casey Peterson	
16. Board comments	-- Chair Casey Peterson	
17. Adjourn	-- Chair Casey Peterson	<i>Motion to adjourn</i>

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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 Dykhouse, 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>Mr. Steve Elliott, 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 Dykhouse	
	➤ Dana Dykhouse	➤ 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 December 14, 2023 Minutes for approval.

See recommended motion below.

Recommended Action:

Motion to approve the December 14, 2023 Minutes as presented.

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South Dakota Science and Technology Authority Board of Directors
Meeting Minutes
Thursday, December 14, 2023
Elevate/DLAB Building, Rapid City, South Dakota

The Board of Directors of the South Dakota Science and Technology Authority (SDSTA) convened at 9:00 a.m. Mountain Time (MT) on Thursday, December 14, 2023, in the Executive Board Room of the David Lust Accelerator Building at Elevate Rapid City, 18 E. Main Street, Rapid City, 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

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

MEMBERS OF THE BOARD ABSENT

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

SDSTA STAFF PRESENT DURING ALL OR PART OF THE MEETING VIA ZOOM

Mr. Tim Engel, SDSTA General Counsel (in person)
Mr. Mike Headley, SDSTA Executive Director and SURF Laboratory Director (in person)
Ms. Michelle Kane, SURF Foundation Director (in person)
Mr. Bill Kelly, SDSTA Contracts & Procurement Manager (by phone)
Ms. Mandy Knight, SDSTA Administrative Services Manager (in person)
Ms. Ann 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. Nicol Reiner, SDSTA Education & Outreach Director (in person)
Ms. Constance Walter, SDSTA External Affairs Project Director (in person)
Ms. Juliet Winger, SDSTA Marketing Specialist (by phone)
Ms. Deb Wolf, SDSTA Director of Outreach and Culture (in person)

ALSO PRESENT DURING ALL OR PART OF THE MEETING

Ms. Brittney Burns, Eide Bailly Auditor (by videoconference)
Mr. Adam Gollofon, SURF Foundation Board Member (in person)
Dr. Florencio Eloy Hernández, Texas A&M/Corpus Christi-Dean of the College of Science (in person)
Mr. Clayton Hollowell, DOE HEP SURF Program Manager (in person)
Mr. Paul Kane, Eide Bailly Auditor (by videoconference)
Mr. Patrick Malone, Dakota Gold Corp. Chief Sustainability Officer (in person)
Ms. Beth Massa, SURF Foundation Board Member (in person)
Ms. Wendy Pitlick, Black Hills Pioneer Journalist (in person)
Dr. Ben Saylor, BHSU Sanford Science Education Center Director/Professor (by phone)
Dr. Barbara Szczerbinska, SURF Foundation Board Member (in person)

ITEM 1. CALL TO ORDER

Chairperson Casey Peterson called the meeting to order at 8:59 A.M. (MT). Roll call was held at 9:00 A.M. Dr. Chris Fall, Ms. Pat Lebrun, and Chairperson Casey Peterson were present in person. Mr. Dana Dykhouse, Mr. Roger Musick, and Mr. Ron Wheeler joined via Zoom. Dr. Ani Aprahamian, Dr. Laurie Nichols, and Dr. James Rankin were absent. Chairperson Peterson then asked guests to introduce themselves. He said if anyone had any questions or comments for the board to address, time will be given during agenda item no. 16. He reported no comment forms were submitted at this time.

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 Mr. Dykhouse and seconded by Dr. Fall to approve the agenda as amended. Motion passed unanimously.

ITEM 3. APPROVE MINUTES

Chairperson Peterson asked if there were any comments on the September 21, 2023, Minutes. Hearing none, he asked for a motion to approve the minutes.

Motion by Ms. Lebrun and seconded by Dr. Fall to approve the September 21, 2023, minutes as presented. Motion passed unanimously.

ITEM 4. GENERAL CONFLICT OF INTEREST DISCLOSURE

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.

There were no disclosures.

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

Mr. Engel said, in regard to disclosures and waivers under SDCL Ch. 3-23, he polled the board members prior to the meeting and no disclosures were made.

ITEM 6. AUDIT COMMITTEE UPDATE

ITEM 6B. EIDE BAILLY LLC AUDIT UPDATE

Chairperson Peterson announced Eide Bailly auditor Mr. Paul Kane had joined by videoconference and then asked Ms. Lebrun to provide an Audit Committee update. She greeted Mr. Kane and said the Audit Committee met on November 14 and noted the minutes of the meeting were in the board packet. She said Eide Bailly performed an audit for the second year in a row and did a great job. Ms. Lebrun referenced the last page of the Compliance Audit Report dated June 30, 2023, and highlighted the federal funds of \$30,000,000.00 expended in South Dakota in the last year. She said this is an impressive number and a big operation, and noted the importance of this project to South Dakota. SDSTA CFO Mr. Terry Miller then reintroduced Mr. Kane and Ms. Brittny Burns of Eide Bailly, who provided updates on the audit conducted in September.

Mr. Kane began his presentation stating the \$30,000,000.00 federal award was audited as a "major program" and will be part of the State's single audit that will be presented to the federal government. He noted the Cooperative Agreement is required to be audited every year regardless of whether the State calls it a "major program".

Mr. Kane and Ms. Burn's presentation highlighted three areas: the Financial Statement Audit, Federal Awards Report, which includes the Compliance Report Package, and the Letter to Governance.

Mr. Kane discussed the independent auditor’s report and referenced information that was provided in the board packet. He said the report was a clean “unmodified” opinion and that it is the best an organization can receive. He noted it was also a massive improvement from last year and the audit went smoothly. He complimented the SDSTA Accounting team for doing a great job.

Mr. Wheeler had technical difficulties and was able to participate via audio at 9:13 a.m.

Mr. Kane discussed the Federal Awards Report and said the schedule shows the changes in dollars and percentages from end of June 30, 2022 compared to June 30, 2023. Questions were addressed relating to Governmental Accounting Standards Board (GASB) and funding of the state’s retirement plan as well as liabilities, expenditures and revenue. He noted management appropriately assessed any findings from last year. He said GASB 96 Subscription-Based Information Technology Arrangements (SBITA) was implemented in FY2023 and requires any cloud-based software to be included on Financial Statements. There was not a material amount of SBITAs to include on the Financial Statements.

Then Ms. Burns presented and reiterated how smoothly the audit went and thanked Mr. Miller and SDSTA Controller Ms. Kim Flock for their assistance. Regarding the Federal Awards Compliance Audit Report, she said there were no significant deficiencies or material weaknesses identified; therefore, nothing to report. Relating to Internal Controls, Ms. Burns said this year, as mentioned earlier by Mr. Kane, the Cooperative Agreement was selected by the State as part of their statewide single audit. She said Eide Bailly audited SDSTA’s compliance with the Department of Energy’s (DOE’s) Cooperative Agreement; the report was a “unmodified” opinion on compliance for the Cooperative Agreement and testing only covered expenditures of the Cooperative Agreement. She said there were no financial statement or federal award findings. Lastly, she reviewed Communication with Governance and said two separate letters were issued for the 2023 audit; a letter in connection with the Financial Statement Audit and a letter in connection with the Compliance Audit. She also said there were uncorrected misstatements during the audit, noting that the uncorrected misstatements (relating to GASB 96) were immaterial as decided by management. She concluded that there were no disagreements or significant difficulties with management. Mr. Kane then asked if there were any questions.

Chairperson Peterson asked about the level of materiality for SBITA and Mr. Kane said it was approximately \$1,000,000.00.

Chairperson Peterson stated he was proud of the SDSTA Accounting and Finance team and thanked Eide Bailly for their service.

ITEM 6C. AUDIT REPORT-FISCAL YEAR ENDED JUNE 30, 2023

Ms. Lebrun moved to accept the audit committee report and requested the approval of the Audit Report-Fiscal year ended June 30, 2023 at the next meeting in March.

Motion by Ms. Lebrun and seconded by Mr. Dykhouse to accept the Audit Committee Report and to discuss Audit Report approval at the next regularly scheduled board meeting per statute. Motion passed unanimously.

ITEM 7. CONTRACT BETWEEN TMI AND SDSTA FOR LAB EXPANSION

Mr. Headley said SDSTA has been working with Thyssen Mining, Inc (TMI) for several months on the design for the 4850L bypass drift work and has received the 30%, 60%, and 95% designs, reviewed cost estimates and schedules for each, and received a proposal from TMI for the construction. In parallel, the SDSTA Contracts team is working with TMI and Mr. Engel on the contract that is included in the board packet. He said the value is approximately \$11,600,000.00, and asked the Board to consider approval of the contract.

Motion by Mr. Musick and seconded by Mr. Wheeler to approve the contract between Thyssen Mining, Inc (TMI) and SDSTA 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. Motion passed unanimously.

Dr. Fall asked how TMI's proposed work compares to other major projects and how TMI approached it? Mr. Headley responded that SDSTA mining engineers reviewed TMI's proposed rates and said they are within industry standards.

Dr. Fall asked if there is any contingency built in? Mr. Headley replied there is not much margin. Unfortunately, some of the cost to maintain the site where this work will be undertaken cannot be charged against the Cooperative Agreement.

ITEM 8. FINANCIAL REPORT

ITEM 8A. FY2024 BUDGET AMENDMENT

Mr. Miller said based on approval of the TMI contract in agenda item no. 7, the FY2024 budget will need to be amended. In June, \$800,000.00 was included in the budget to order long-lead items and design costs. Then in September, \$2,000,000.00 was included. The remaining amount of the \$13,000,000.00 should now be budgeted. The proposed FY2024 budget amendment is \$10,200,000.00 and includes the design, overhead charges (indirects), SDSTA labor and non-labor costs (including insurance) and the TMI contract as previously discussed.

Dr. Fall asked about indirect charges and Mr. Miller replied that money is transferred from the state to SDSTA's account to pay expenses and overhead related to this project.

Motion by Dr. Fall and seconded Ms. Lebrun to approve the SDSTA amended FY2024 budget as presented. Motion passed unanimously.

ITEM 8B. OCTOBER FINANCIAL STATEMENTS

Mr. Miller said financial statements through October 31, 2023, were included in the board packet. He pointed out that there is an underrun of \$1,680,000.00 going into year five of the Cooperative Agreement, and Mr. Headley interjected that it will be spent out by the end of the current fiscal year.

Mr. Miller briefly discussed the expansion funding on the balance sheet and said as highlighted by Eide Bailly, GASB 83 Asset Retirement Obligation Allocation (ARO) is included. If the SDSTA facility had to close, it has to be reported on the financial statements as an external and internal obligation. This will be depreciated over 30 years and is a new depreciation item of approximately \$37,000.00.

Chairperson Peterson asked if the ARO is depreciated, wouldn't liability grow? Mr. Miller concurred.

Lastly, Mr. Miller highlighted several items on the comparative balance and income statements.

Chairperson Peterson asked about the miscellaneous expenses and donations of \$1,600,000.00. Mr. Miller replied it is related to the transfer of money from the SURF Foundation for the Sacred Circle Garden expenditures and assets paid with Cooperative Agreement dollars.

Motion by Mr. Wheeler and seconded by Ms. Lebrun to accept the financial report as presented. Motion passed unanimously.

ITEM 9. SURF FOUNDATION UPDATE

Ms. Michelle Kane, Director of the SURF Foundation, gave a brief overview and focused on four SURF Foundation projects and programs.

1). The Institute for Underground Science - The SURF Foundation will spearhead fundraising efforts for the construction, infrastructure, and programming of The Institute, ensuring it becomes a global center for collaboration and an intellectual community for the international underground science community located adjacent to SURF. Planned activities are as follows:

- Public Launch: December 14, 2023, Rapid City, SD
- Program Manager: Onboard December 27, 2023
- Center for Theoretical Underground Physics and Related Areas (CETUP*) Workshop: June 17 - July 22, 2024, Dark Matter & Neutrino focus
- Science Talks: Initiating March 2024
- QuarkNet Conference: May 30 - June 3, 2024, at SURF
- Infrastructure: The Institute's building phase in progress. Current budget estimates are \$65,000,000.00 for the building, \$20,000,000.00 for housing facilities, \$12,500,000.00 to \$22,600,000.00 per year for operations.

2). Community Engagement and Events - The SURF Foundation is dedicated to raising funds that support public outreach, ensuring science is accessible to local residents, the region, the nation, and the world through both in-person and virtual engagement. Proposed activities include the following:

- Neutrino Day: July 13, 2024
- Deep Talks: Monthly Public Science Talks at VC (October – April)
- Deep Roots: Monthly Public Science and Cultural Talks at Garden and VC (May – September)
- Garden Construction and Infrastructure: Phase I construction complete, programming IP
- Artist in Residence (AiR) Program: Announcement January 2024

3). Education and Student Development - The SURF Foundation actively cultivates resources to enhance student development through internships, scholars programs, science educator training, and STEM education initiatives.

- 2024 Internships: Applications in review, 83 received to date. Ms. Kane expressed thanks to Mr. Headley's family for their generous support.
- 2024 Davis-Bahcall Scholars Program: Applications accepted until January 20, 2024. Ms. Kane expressed thanks to Mr. Dykhous and First Premier Bank for their generous support.
- Teacher Professional Development
- K-12 STEM Education

4). Friend of SURF Initiative - The "Friends of SURF in Every State" initiative is designed to establish a nationwide network of advocates for SURF. This network will include donors, advocates, and connectors in all 50 states, supporting the SURF Foundation's goals in fundraising, outreach, and community engagement.

Lastly, Ms. Kane discussed her work plan for the next three months, which includes the following:

- Friends of SURF Initiative
- Foundation Staffing
- Fundraising
- Grants Evaluation
- Institute Strategy\Marketing Update
- Donor Engagement
- Preparation for the next Foundation board meeting

Chairperson Peterson asked about the new Program Manager for the Institute and Mr. Headley announced SDSTA has hired Ms. Stacie Granum; she will start December 27, 2023. He said Ms. Granum worked at Visit Rapid City for several years and has strong hospitality skills.

ITEM 10. REPORT FROM EXECUTIVE DIRECTOR

ITEM 10A. DECLARATIONS OF SURPLUS (4)

Mr. Headley referenced the four Declarations of Surplus included in the board packet and said the items are primarily equipment that have been identified for scrap. He asked if there were any questions and there were none.

ITEM 10B. SDSTA QUARTERLY UPDATE

Mr. Headley began his report noting safety performance and that SDSTA has surpassed two years with no lost time injuries. He credited Ms. Julie Ewing's leadership in the Environmental, Safety and Health (ESH) department as well as her team and the entire staff at SDSTA.

Mr. Headley then presented the following highlights:

- Long-Baseline Neutrino Facility (LBNF) excavation is over 90% complete; excavation of the north detector cavern was completed December 4
- Yates Shaft maintenance reached 1,700 foot-level; staff plan to reach the 4100L by July 2024
- 4850L expansion design is 95% completed; construction is to start in March 2024
- P5 report released December 7; it provides a new 10-year particle physics strategic plan (20-year vision)
- The Čaŋgľěška Wakhńj (Sacred Circle Garden) is completed; Native plants planned for spring 2024
- Developing proposal for the next 5-year SURF Ops Cooperative Agreement (CA)
- Institute for Underground Science at SURF Program Manager hired; Institute launch December 14 (tonight)

He read the SURF summary in the 2024 Particle Physics Strategic Plan that was released on December 7 and reviewed several recommendations outlined in the plan. Mr. Headley thanked SDSTA Director of Science Jaret Heise for all his hard work and effort to stay effectively engaged as the plan was being drafted.

With respect to the 4850L Expansion – Phase A Drift excavation, Mr. Headley said the work should be completed in the fall of 2024. He anticipates a workforce of approximately 47 people. Also, he shared several photos illustrating LBNF construction progress.

On a related note, Mr. Tim Engel recalled several years ago, Directors and Officers liability coverage of \$5M was discussed with the Board. A quote of \$31,000.00 (a reduction from last year) was received to continue with that level of coverage. Mr. Engel asked if there was any concern with the amount of coverage; there were no comments or concerns expressed.

ITEM 10C BLACK HILLS UNDERGROUND FRONTIER CONSORTIUM MOU

Mr. Headley said SDSTA is part of a consortium led by Elevate Rapid City; the consortium was awarded a \$500,000.00 Tech Hubs Strategy Development Grant through the U.S. Department of Commerce's Economic Development Administration. The Tech Hubs Program, authorized by the CHIPS and Science Act, is investing in regional projects and aims to transform them into globally competitive innovation centers. Mr. Headley said over an 18-month period, the consortium will work with a consultant to develop a proposal to get significant funding and designation as a Tech Hub which will be based on mining equipment and underground technology. The west river consortium includes the

following entities: the SD Department of Labor, City of Rapid City, Western Dakota Tech, SD Mines, RESPEC, CAT and SDSTA. Mr. Headley said there is a straightforward Memorandum of Understanding (MOU) that indicates the relationship among the partners and the MOU is not legally binding. Mr. Engel interjected that he has reviewed and commented on the MOU.

Motion by Mr. Wheeler and seconded by Dr. Fall 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.

ITEM 10D. E&O UPDATE

Mr. Headley introduced Education & Outreach (E&O) Director Ms. Nicol Reiner who presented on five core ideas:

- 1) Building Relationships – Teacher professional development. She said there has been great effort put forth to build relationships with teachers.
- 2) Supporting Communities – E&O worked with Lead/Deadwood STEM lessons K-5 last Spring and over the summer and also worked with Deadwood Library and other communities including Cheyenne Eagle Butte School.
- 3) Cultivating Curiosity – E&O met a Bennet County Middle School teacher through a partnership with Established Program to Stimulate Competitive Research (EPSCoR). The team is also working with Belle Fourche and Huron schools. Chairperson Peterson asked if “subs” refers to substitute teachers and Ms. Reiner confirmed adding that there is a lack of substitute teachers. Schools will not allow teachers out of classroom due to the shortage of “subs” as well as funding, which impacts their ability to participate in field trips to SURF. Chairperson Peterson noted that Martin school is approximately 75% Native American and is great outreach.
- 4) Connecting Content – E&O staff have been working with Douglas School District and engaging with students. Also, members of SDSTA Operations teamed up with E&O to visit Career and Technical Education (CTE) classrooms. Rapid City Area Schools have career classes and would like to visit SURF. E&O recognizes this important opportunity.
- 5) Sparking Conversation – The E&O team has shifted their conference attendance into exhibit halls to have deeper conversations and is attending local and international conferences: March 20-23, 2024, National Conference on Science Education in Denver; February 1-3, 2024, SD STEM Education; December 12-16, 2023, Lakota Nations Education Conference in Huron; November 16-17, 2023, Indian Education Summit in Huron.

Ms. Reiner then discussed E&O learning and next steps and said the E&O impact has been magnified due to the help of other SDSTA staff. She gave a shout out to the following: Engineer Mr. Jason Connot, Industrial Electrician Mr. Dale Curran, Deputy Laboratory Director/Director of Operations Mr. Will McElroy, Director of Hoists & Shafts Ms. Wendy Straub, Experiment Support Scientist Ms. Julia Delgaudio, Research Scientist Dr. Markus Horn, External Affairs Director Ms. Constance Walter and the entire E&O team. E&O is asking the question “How can we preserve our time and expand across the nation and internationally?” SURF is America’s Underground Facility and E&O wants to tell everyone.

Lastly, Ms. Reiner shared a table of data illustrating the number of student interactions with the E&O Department. She said data is important, but stories are important also. She remarked there are more curriculum units out to schools in December than last year.

In conclusion, Ms. Reiner briefly asked the board for feedback concerning the numbers she includes in her report. She said the current E&O team has reached its limit to continue to grow numbers of student contacts. They can continue to provide the numbers, but she asked if there is another metric that would help illustrate some of the stories to the Board and others that explain the great work that is happening from the E&O team and others.

Chairperson Peterson said his reaction would be to hear more stories from the teachers then asked if there were further comments or questions; there were none.

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

ITEM 11. APPROVAL OF UPDATED SDSTA POLICIES

Mr. Headley said the Record Retention Policy was included in the board packet and asked Mr. Miller to comment on a few of the updates. Mr. Miller had worked with Mr. Engel to tailor the retention periods of the administrative documents to fit SDSTA's needs while meeting legal requirements. There were no questions.

Motion by Mr. Wheeler and seconded by Mr. Dykhouse to approve the updated SDSTA Record Retention Policy as presented. Motion passed unanimously.

ITEM 12. DISCUSS REGISTRATION OF LOBBYISTS

Mr. Engel explained in order to represent an entity before the legislature, a person or organization has to register with the Secretary of State and the entity is required to authorize it before filing. He said every year at the December meeting, the board authorizes several persons to register as lobbyists on behalf of SDSTA. He suggested the board authorize the following to register as lobbyists: Mr. Headley, Chairperson Peterson, Mr. Engel, Mr. Abraham, Mr. Bell, Mr. Skjonsberg and Mr. Glodt (GSG Strategies, an advocacy firm based out of Pierre).

Chairperson Peterson noted that it is good policy to keep legislators updated and maintain awareness of SDSTA's profile.

Motion by Mr. Wheeler and seconded by Dr. Fall to designate Mr. Mike Headley, Mr. Casey Peterson, Mr. Tim Engel, Mr. Doug Abraham, Mr. Justin Bell, Mr. Rob Skjonsberg and Mr. Jason Glodt as lobbyists for the SDSTA for the 2024 Legislative Session. Motion passed unanimously.

ITEM 13. EXECUTIVE SESSION

Motion by Mr. Wheeler and seconded by Mr. Dykhouse to enter into 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 10:48 a.m. for a ten-minute break followed by executive session.

The board reconvened in open session at 12:18 p.m.

ITEM 14. REPORT FROM EXECUTIVE SESSION

A quorum was confirmed.

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

Motion by Dr. Fall and seconded by Ms. Lebrun to approve the executive session report. Motion passed unanimously.

ITEM 15. ANNOUNCE 2024 BOARD SCHEDULE AND CONFIRM DATE AND TIME OF NEXT MEETING

Chairperson Peterson reminded the board of the next meeting, scheduled for Thursday, March 21, 2024, at 8:00 a.m. (MT) in SURF’s E&O Conference room and via Zoom.

ITEM 16. PUBLIC COMMENTS

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

ITEM 17. BOARD COMMENTS

Dr. Fall disclosed that he may have a potential conflict with the EDA grant Mr. Headley mentioned earlier as MITRE, the company he works for, assists the U.S. Department of Commerce with respect to that program. Dr. Fall indicated he is not directly involved with the Tech Hubs program.

In conclusion, Mr. Headley announced a Legislative Session social is scheduled on Wednesday, February 7 from 5:00 p.m. to 8:00 p.m. (CT) at RedRossa Italian Grille in Pierre and invited board members to attend.

ITEM 18. ADJOURN

Chairperson Peterson wished everyone a Merry Christmas and thanked everyone for their attendance at the meeting.

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

Meeting adjourned at 12:24 p.m.

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.

Recommended Action:
Informational.

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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

Attached is the SDSTA Audit Report-fiscal year ended June 30, 2023. (*see recommended motion below*)

Recommended Action:

6A. Motion to accept Audit Report Fiscal Year Ended June 30, 2023 as reviewed and discussed at December 14, 2023 board meeting.

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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
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
Net Position -- Beginning of Year	119,951,219
Net Position -- End of Year	\$ 136,519,299

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
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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
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**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
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Net Position -- Beginning of Year	468,446
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Net Position -- End of Year	\$ 639,670
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**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.

Financial Report—Director Mike Headley and CFO Terry Miller

The Financial Report includes the following:

- 7A. Financial Summaries for January 2024, *attached. (see suggested motion below)*

Recommended Action:

Motion to accept financial report as presented.

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DIVISION: ALL

BALANCE SHEET

ASSETS

		AS OF 01/31/24

CURRENT ASSETS		
First Interstate Checking	\$	2,408,903.72

Total in Local Checking		2,408,903.72
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		11,775,512.35
SD Treas: Experiments		570,118.85

Total with SD Treasurer		23,056,374.76
Billed A/R		2,208,454.25
Unbilled A/R		77,061.99
Other A/R		557,365.95
Inventory - Supplies		3,300,161.33
Inventory - Warehouse		494,199.59
Other Current Assets		1,815,759.79

Total Current Assets		33,918,281.38
FIXED ASSETS		
Land, Underground & Other		12,793,484.40
Bldgs & Infrastructure		19,215,582.35
Improvements		63,312,036.57
Work in Progress		6,039,722.86
Computer Equipment		366,435.18
Equipment & Fixtures		10,282,282.28
DOE Property Transfer		10,395,464.03
Accum Depr & Amort		(24,575,050.20)
DOE Prop. Accum Deprec.		(1,253,411.27)

Total Fixed Assets		96,576,546.20
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		
	\$	=====
		146,097,748.85
		=====

DIVISION: ALL

BALANCE SHEET

LIABILITIES & EQUITY

		AS OF 01/31/24

CURRENT LIABILITIES		
Accounts Payable	\$	1,974,299.34
Other Payables		4,649.19

Total Accounts Payable		1,978,948.53
Accrued Payroll Liab		1,697,662.07

Total Current Liabilities		3,676,610.60
OTHER LIABILITIES		
LT Xenon Notes Payable		3,121,190.01
Pension Deferred Inflows		3,447,916.22
Asset Retirement Obligation		1,196,884.99

Total Other Liabilities		7,765,991.22
EQUITY		
Restricted: Indemnification		7,500,000.00
Restricted: SB35 Appropriation		11,775,512.35
Restricted: Mine Closure		1,567,504.94
Restricted: Pension		2,375,188.27
Restricted: Experiment. Int.		570,118.85

Total Restricted Funds		23,788,324.41
Investment in Gen FA		96,576,546.20
Unrestricted Funds		14,290,276.42

Total Equity		134,655,147.03
		=====
TOTAL LIABILITIES & EQUITY	\$	146,097,748.85
		=====

ALL

STATEMENT OF INCOME

FOR THE PERIOD ENDING 1/31/2024

	YR-TO-DATE

REVENUE	
DOE Subcontracts	\$ 21,162,107.11
Checking Interest	5,034.42
Interest Income	208,749.69

TOTAL REVENUE	21,375,891.22
DIRECT COSTS	
Direct Labor	5,444,983.65
Board of Directors	7,092.91
Capital Outlay >\$5K	1,398,482.00
Contractual Svcs	3,961,881.43
Inventory	165,636.67
Supplies	1,351,602.64
Travel - Domestic	103,466.10
Travel - Foreign	12,773.21
Utilities	1,212,647.26
Other Direct Costs	160,365.63
Unallow/Unbill Costs	132,907.45

TOTAL DIRECT COSTS	13,951,838.95
INDIRECT COSTS	
Fringe Benefits	5,335,955.50
Overhead	6,419,544.30

TOTAL INDIRECT COSTS	11,755,499.80

GROSS PROFIT/LOSS ()FROM OPERATIONS	(4,331,447.53)

OTHER INCOME	
Water Treatment	160,139.06
Miscellaneous Income	22,615.50
Other Operating Income	101,389.49

TOTAL OTHER INCOME	284,144.05
OTHER EXPENSES	
Misc. Expenses & Donations	(3,182,895.17)
Loss (Gain) on Sale of FA	15,282.62
Other Unallowable Expense	344,790.64
Reclass Incr Net Assets	216,724.98

TOTAL OTHER EXPENSES	(2,606,096.93)
	=====
NET INCOME/LOSS ()	\$ (1,441,206.55)
	=====

DIVISION: ALL

COMPARATIVE BALANCE SHEET

ASSETS

	AS OF 01/31/24	AS OF 01/31/23	\$ CHANGE	% CHANGE
CURRENT ASSETS				
First Interstate Checking	\$ 2,408,903.72	\$ 3,171,991.84	\$ (763,088.12)	-24.06%
Total in Local Checking	2,408,903.72	3,171,991.84	(763,088.12)	-24.06%
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	11,775,512.35	-	11,775,512.35	100.00%
SD Treas: Experiments	570,118.85	650,766.50	(80,647.65)	-12.39%
Total with SD Treasurer	23,056,374.76	11,070,931.16	11,985,443.60	108.26%
Billed A/R	2,208,454.25	3,147,466.72	(939,012.47)	-29.83%
Unbilled A/R	77,061.99	4,411.04	72,650.95	1647.03%
Other A/R	557,365.95	3,229,482.11	(2,672,116.16)	-82.74%
Inventory - Supplies	3,300,161.33	3,150,678.11	149,483.22	4.74%
Inventory - Warehouse	494,199.59	439,646.62	54,552.97	12.41%
Other Current Assets	1,815,759.79	1,387,749.25	428,010.54	30.84%
Total Current Assets	33,918,281.38	25,602,356.85	8,315,924.53	32.48%
FIXED ASSETS				
Land, Underground & Other	12,793,484.40	12,743,473.13	50,011.27	0.39%
Bldgs & Infrastructure	19,215,582.35	19,321,800.42	(106,218.07)	-0.55%
Improvements	63,312,036.57	62,813,135.62	498,900.95	0.79%
Work In Progress	6,039,722.86	4,088,796.90	1,950,925.96	47.71%
Computer Equipment	366,435.18	381,499.81	(15,064.63)	-3.95%
Equipment & Fixtures	10,282,282.28	10,705,072.13	(422,789.85)	-3.95%
DOE Property Transfer	10,395,464.03	6,476,092.97	3,919,371.06	60.52%
Accum Depr & Amort	(24,575,050.20)	(22,719,612.55)	(1,855,437.65)	8.17%
DOE Prop. Accum Deprec.	(1,253,411.27)	(737,909.69)	(515,501.58)	69.86%
Total Fixed Assets	96,576,546.20	93,072,348.74	3,504,197.46	3.77%
OTHER ASSETS				
Asset Retirement Obligation Deferred Outflows	1,129,637.92	1,129,637.92	-	0.00%
Asset Retirement Obligation Accumlated 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	8,668,139.27	19,694.19	0.23%
Total Other Assets	15,602,921.27	21,041,446.15	(5,438,524.88)	-25.85%
TOTAL ASSETS	\$ 146,097,748.85	\$ 139,716,151.74	\$ 6,381,597.11	4.57%

DIVISION: ALL

COMPARATIVE BALANCE SHEET

LIABILITIES & EQUITY

	AS OF 01/31/24	AS OF 01/31/23	\$ CHANGE	% CHANGE
CURRENT LIABILITIES				
Accounts Payable	\$ 1,974,299.34	\$ 1,598,011.62	376,287.72	23.55%
Other Payables	4,649.19	217.75	4,431.44	2035.10%
	-----	-----	-----	-----
Total Accounts Payable	1,978,948.53	1,598,229.37	380,719.16	23.82%
Accrued Payroll Liab	1,697,662.07	1,696,701.94	960.13	0.06%
	-----	-----	-----	-----
Total Current Liabilities	3,676,610.60	3,294,931.31	381,679.29	11.58%
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	11,442,601.82	19,724,696.25	(8,282,094.43)	-41.99%
EQUITY				
Restricted: Indemnificati	7,500,000.00	7,500,000.00	-	0.00%
Restricted: SB35 Appropriation	11,775,512.35	-	11,775,512.35	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.	570,118.85	650,766.50	(80,647.65)	-12.39%
Restricted: Foundation	-	-	-	0.00%
	-----	-----	-----	-----
Total Restricted Funds	23,788,324.41	11,627,874.58	12,160,449.83	104.58%
Investment in Gen FA	96,576,546.20	93,072,348.74	3,504,197.46	3.77%
Unrestricted Funds	14,290,276.42	15,291,232.17	(1,000,955.75)	-6.55%
	-----	-----	-----	-----
TOTAL EQUITY	134,655,147.03	119,991,455.49	14,663,691.54	12.22%
	=====	=====	=====	=====
TOTAL LIABILITIES & EQUITY	\$ 146,097,748.85	\$ 139,716,151.74	\$ 6,381,597.11	4.57%
	=====	=====	=====	=====

COMPARATIVE STATEMENT OF INCOME

FOR THE PERIOD ENDING 1/31/2024

	YEAR TO DATE	PRIOR YEAR TO DATE	\$ CHANGE	% CHANGE
REVENUE				
DOE Subcontracts	\$ 21,162,107.11	\$ 20,518,699.23	\$ 643,407.88	3.14%
Checking Interest	5,034.42	6,108.96	(1,074.54)	-17.59%
Interest Income	208,749.69	64,715.19	144,034.50	222.57%
TOTAL REVENUE	21,375,891.22	20,589,523.38	786,367.84	3.82%
DIRECT COSTS				
Direct Labor	5,444,983.65	5,065,926.11	379,057.54	7.48%
Board of Directors	7,092.91	3,738.46	3,354.45	89.73%
Capital Outlay >\$5K	1,398,482.00	2,314,606.28	(916,124.28)	100.00%
Contractual Svcs	3,961,881.43	1,920,243.79	2,041,637.64	106.32%
Inventory	165,636.67	183,674.37	(18,037.70)	-9.82%
Supplies	1,351,602.64	835,865.37	515,737.27	61.70%
Travel - Domestic	103,466.10	54,614.78	48,851.32	89.45%
Travel - Foreign	12,773.21	4,226.84	8,546.37	202.19%
Utilities	1,212,647.26	1,364,342.81	(151,695.55)	-11.12%
Other Direct Costs	160,365.63	159,282.33	1,083.30	0.68%
Unallow/Unbill Costs	132,907.45	280,546.89	(147,639.44)	-52.63%
TOTAL DIRECT COSTS	13,951,838.95	12,187,068.03	1,764,770.92	14.48%
INDIRECT COSTS				
Fringe Benefits	5,335,955.50	4,317,787.86	1,018,167.64	23.58%
Overhead	6,419,544.30	6,302,416.05	117,128.25	1.86%
TOTAL INDIRECT COSTS	11,755,499.80	10,620,203.91	1,135,295.89	10.69%
GROSS PROFIT/LOSS ()	(4,331,447.53)	(2,217,748.56)	(2,113,698.97)	517.81%
OTHER INCOME				
Water Treatment	160,139.06	100,304.86	59,834.20	59.65%
Miscellaneous Income	22,615.50	30,517.74	(7,902.24)	-25.89%
Other Operating Income	101,389.49	17,421.21	83,968.28	481.99%
TOTAL OTHER INCOME	284,144.05	148,243.81	135,900.24	91.67%
OTHER EXPENSES				
Misc. Expenses & Donations	(3,182,895.17)	(292,628.64)	(2,890,266.53)	987.69%
Loss (Gain) on Sale of FA	15,282.62	(2,512,076.27)	2,527,358.89	-100.61%
Other Unallowable Expense	344,790.64	226,517.69	118,272.95	52.21%
Reclass Incr Net Assets	216,724.98	(1,327,576.57)	1,544,301.55	-116.32%
TOTAL OTHER EXPENSES	(2,606,096.93)	(3,905,763.79)	1,299,666.86	-33.28%
NET INCOME/LOSS ()	\$ (1,441,206.55)	\$ 1,836,259.04	\$ (3,277,465.59)	-178.49%

South Dakota Science & Technology Authority
Available Resources
1/31/2024

Cash Total Checking	\$	2,408,904
Cash With State Treasurer	\$	<u>23,056,375</u>
Total Cash	\$	25,465,279
Less: Restricted Funds		
Indemnification/Mine Closure	\$	(9,067,505)
SB35 Appropriation	\$	(11,775,512)
Experiments (Xenon, Interest, Infrastructure)	\$	<u>(570,119)</u>
Total Cash Available for Infrastructure Upgrades and Authority Operations	\$	4,052,142
Plus: Accounts Receivable Billed	\$	2,208,454
Transfer request from the SB35 Appropriation	\$	411,507
Accounts Receivable Unbilled	\$	77,062
Less: Current Liabilities (Accounts Payable & Accrued Payroll)	\$	(3,676,611)
Available Cash and Receivables	\$	<u><u>3,072,555</u></u>

SDSTA Operating Budget Summary FY2024

Actual vs Budget
January 2024 & YTD

	January 2024				Actual YTD				
	Budget	\$ Over/Under Budget	% of Budget	YTD Budget	\$ Over/Under Budget	% of Budget	% Remaining		
SDSTA (Authority) Direct Charges									100%
Board of Directors	\$616	\$1,500	\$884	41.08%	\$7,372	\$10,500	\$3,128	70.21%	29.79%
Executive Office	\$102,708	\$118,507	\$15,799	86.67%	\$703,748	\$774,570	\$70,822	90.86%	9.14%
Science Center E & O	\$586	\$300	(\$286)	195.32%	\$97,077	\$81,700	(\$15,377)	118.82%	-18.82%
SURF Foundation	\$11,995	\$25,381	\$13,386	47.26%	\$126,434	\$186,181	\$59,747	67.91%	32.09%
Science Liaison	-\$2,742	\$0	\$2,742	100.0%	-\$2,353	\$0	\$2,353	NA	NA
SLHVC (Visitor Center)	\$41,848	\$50,677	\$8,829	82.58%	\$307,383	\$377,420	\$70,037	81.44%	18.56%
Subtotal	\$155,011	\$196,364	\$41,353	78.94%	\$1,239,660	\$1,430,371	\$190,711	86.67%	13.33%
Federal/State Funding - Direct Charges									
Fermi C#671265 Prof. St.Services	\$10,772	\$10,910	\$138	98.73%	\$65,215	\$76,370	\$11,155	85.39%	14.61%
Fermi C#674969 Ross Logist.Supp.	\$231,035	\$282,106	\$51,071	81.9%	\$2,515,906	\$2,794,491	\$278,585	90.03%	9.97%
Office of Science Coop.Agree	\$1,401,372	\$1,590,688	\$189,316	88.1%	\$9,357,053	\$10,115,067	\$758,014	92.51%	7.49%
Office of Science IIP Projects	\$113,737	\$113,737	\$0	100.0%	\$2,488,387	\$2,488,387	\$0	0.00%	0.00%
LBNL LZExp.Operat.C#7650068 & DE-SC0022857	\$35,418	\$51,343	\$15,925	68.98%	\$404,390	\$359,401	(\$44,989)	112.52%	-12.52%
Battelle Mem. Inst - DEMO-FTES	\$0	\$0	\$0	0.0%	\$173	\$173	\$0	100.00%	0.00%
MJD (Majorana) ORNL144149 & SDSM&T CT001412 & CT005350	\$2,532	\$2,035	(\$497)	124.43%	\$15,432	\$14,245	(\$1,187)	108.33%	-8.33%
BHSU E & O - CT004853 & CT004854	\$1,303	\$1,303	\$0	100.0%	\$2,980	\$2,980	\$0	99.99%	0.01%
* Kiewit/Thyssen/DakotaT.	\$1,525	\$1,525	\$0	100.0%	\$10,675	\$10,675	\$0	100.00%	0.00%
* Caterpillar Inc.	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	0.00%	100.00%
RESPEC Thermal Breakout	\$0	\$83	\$83	0.0%	\$0	\$582	\$582	0.00%	100.00%
Subtotal	\$1,797,694	\$2,053,731	\$256,036	87.53%	\$14,860,210	\$15,862,371	\$1,002,161	93.68%	6.32%
Indirect Expenses									
Indirect Charges Personnel	\$440,388	\$648,293	\$207,905	67.93%	\$3,143,367	\$4,196,348	\$1,052,982	74.91%	25.09%
Indirect Charges Other	\$522,996	\$559,923	\$36,927	93.4%	\$3,755,038	\$3,989,742	\$234,704	94.12%	5.88%
Subtotal	\$963,383	\$1,208,216	\$244,833	79.74%	\$6,898,405	\$8,186,090	\$1,287,685	84.27%	15.73%
Totals	\$2,916,089	\$3,458,311	\$542,222	84.32%	\$22,998,275.54	\$25,478,832.43	\$2,480,557	90.26%	9.74%
* 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:

- 9A. SDSTA quarterly update—*informational*.
- 9B. 4850L expansion construction presentation—SDSTA Director of Engineering Mr. Al Stratman, *informational*.
- 9C. LBNF/DUNE update presentation—Fermilab LBNF FSCF-BSI Project Manager Mr. Joshua Willhite, *informational*.

See recommended motion below.

Recommended Action:

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

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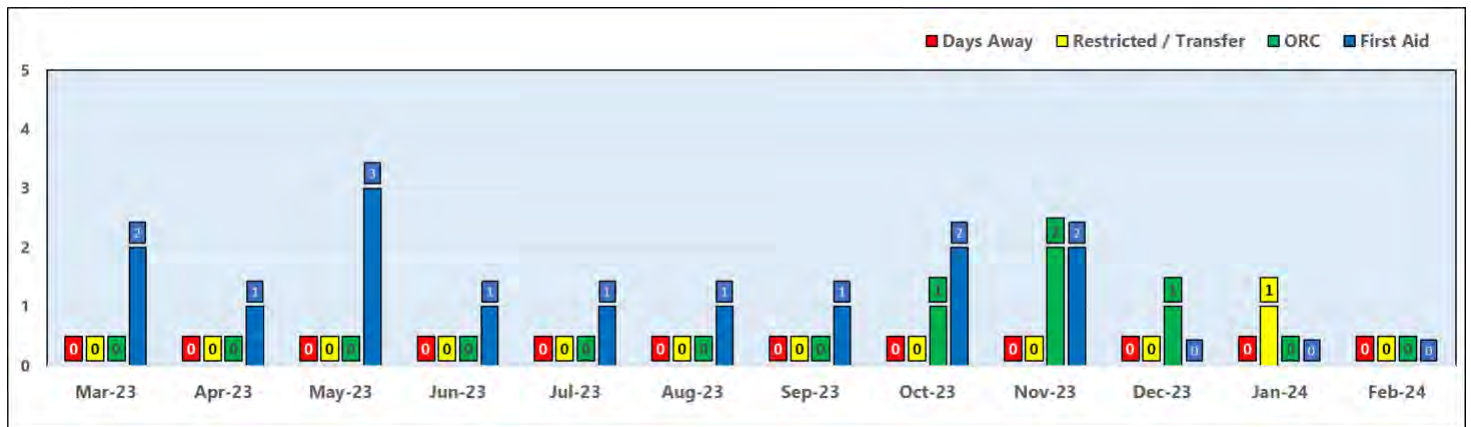
December 2023 – February 2024 Progress Report
Submitted March 13, 2024

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

December 2023 thru February 2024: Recordable Cases

- 12/14/23: Other Recordable Case – employee slip on ice.
- 1/24/24: Restricted Time – employee injured knee while stepping onto uneven ground while exiting mobile equipment.

December 2023 thru February 2024: First Aid Cases

- No events to report.

ESH Support

- N/A

Work Accomplishments

- ESH worked with the Yates infrastructure technicians to incorporate hot work hazards and mitigations into the top-down maintenance standard operating process. Additionally, further training and increased controls in the shaft have been implemented.
- The Safety Support Perception Survey (SSPS) data was collected. A communication was provided to the organization informing the respondents of how the comments will guide new actions across the facility.
- The Emergency Response Team (ERT) is working with FRA and its subcontractors to develop rescue plans for aerial lift emergency scenarios.
- ERT completed a surface drill/exercise involving a simulated report of smoke at the Wastewater Treatment Plant; all objectives were met.
- In support of LBNF/DUNE, ESH conducted additional Guide training classes for the 4850L Ross Refuge Chamber.
- The ESH security manager coordinated a surface tour of the Yates Complex and Kirk Road with the FRA physical security manager.
- SDSTA's industrial hygienist and TMI's representative collaborated to discuss strategic baseline air sampling options for the 4850L drift excavation project.
- Operations at the Ross Shaft stopped following a rock fall incident within the shaft during brow excavation. FRA subcontractors completed an investigation of the incident.
- The Hearing Conservation Standard was updated and approved as a part of the annual review.
- The ESH team, including ERT, collaborated with SDSTA partners on emergency management procedures.
- The SDSTA Electrical Safety Committee closed all electrical review action items (see graph below).
- The following 2023 Key Performance Indicators (KPIs) were closed:
 - Reduce recordable cases by 15% from previous years 2021-2022.
 - The overall reduction was 45% for 2023.
 - Conduct 10 safety sweeps per quarter.

- Conducted an average of 18 sweeps per quarter.
 - Comply with effluent limitations, monitoring requirements and recording obligations of the South Dakota Surface Water Discharge Permit.
 - Met all reporting requirements for 2023-zero discrepancies recorded.
 - Minimize public complaints from visible air emissions from SDSTA activities.
 - Zero complaints were received from the public in 2023.
- The following incident investigations were completed:
 - Ross cage door came off track. (12/28)
 - Critical system shutdown relating to extreme cold temperatures. (1/12)
 - Ross cage overspeed activation. (1/23)
 - Mini-excavator window damaged. (1/26)
 - Yates Headframe powered door damaged. (2/22)
- The Quality Assurance/Quality Control team:
 - Completed the Integrated Management System (IMS) review with SDSTA top management.
 - Certified two SDSTA personnel as internal QA/QC auditors.
 - Finalized inspections from set 1 to 246 within the Yates Shaft Cage section for top-down maintenance.
 - Completed the Accounting & Finance Office and Communications department internal audits.

Upcoming Activities/Trainings

- Q2 2024 SD Office of Risk Management (ORM) compliance visit.
- March and April AED/CPR/First Aid.

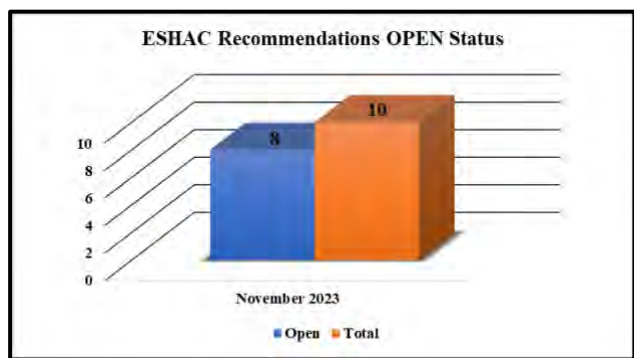
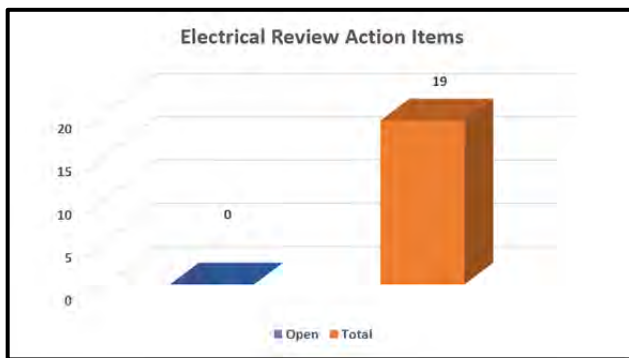
Wellness Initiatives

- December – Beginner yoga sessions.

Environmental Support

- All monthly Discharge Monitoring Reports as required by the National Pollutant Discharge Elimination System (NPDES) Permit were prepared and submitted to the South Dakota Department of Agriculture and Natural Resources (SD DANR). All water discharge were within permit limits.
- The Annual Water Use Report (dewatering volume) was submitted to the SD DANR.
- The Annual Tier II Report (Emergency Planning and Community Right-To-Know Act) was submitted to the SD DANR, the State Emergency Response Commission, the Local Emergency Planning Committee, and the Lead Fire Department.
- All Spill Prevention Control and Countermeasure (SPCC) inspections were completed.
- A semi-annual storm water inspection was completed.
- Three Integrated Management System (IMS) 2023 Environmental Objectives and one IMS 2023 Significant Environmental Aspect (SEA) Objectives were documented as “Objective Met” and reported at the Management Review.

Third Party Review Recommendations Status



Quality Assurance / Quality Control Status

Work Accomplishments

- Change Control Request (CCR) submittals and approval/pending (11/14/2023 – 2/16/2024)
 - Initiated CCRs – 50
 - Approved CCRs – 56
 - Pending CCRs – 2
- SDSTA internal documents converted to Integrated Management System (IMS) format as of 2/16/2024 – total of 669.

CCR No.	Title	Status	Approval Date
858	Finance & Accounting (FI) Documents	Approved	11/7/2023
859	Science Publication Guidelines	Approved	11/28/2023
860	Travel Checklist (Guidelines)	Approved	11/7/2023
861	ESH Safety Requirements Contracts	Approved	11/3/2023
862	IMS Org Chart change	Approved	11/30/2023
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	Approved	11/15/2023
867	New Contracts & Procurements Documents	Approved	11/14/2023
868	Hot Work	Approved	12/12/2023
869	Confined Space Entry Permit Work Instruction Update	Approved	12/4/2023
870	SURF Incident Specific Responses	Approved	12/4/2023
871	Information Technology Security Standard	Approved	12/19/2023
872	Archive Administrative Services Document	Approved	12/4/2023
873	Training Database	Approved	12/5/2023
874	LOTO & Compressed Gas Supporting Documents	Approved	12/12/2023
875	SOP 79 Update	Approved	12/13/2023
876	User Agreement Update	Approved	12/12/2023
877	SDSTA Manual Update	Approved	12/27/2023
878	Science documents Update	Approved	12/19/2023
879	Severe Weather & Explosive Management Update	Approved	12/19/2023
880	New Science Form	Approved	12/12/2023
881	SPCC Inspection Form Update	Approved	12/12/2023
882	SDSTA Password Document Update	Approved	12/12/2023
883	Underground Access Documents	Approved	12/19/2023
884	QAQC Documents Updates	Approved	12/19/2023
885	Well-Being Team Charter	Approved	12/19/2023
886	QA/QC Document Update	Approved	12/14/2023
887	New ESH Documents and Updates	Approved	12/19/2023
888	ERP & SPCC Map Updates	Approved	12/14/2023
889	New ESH Register	Approved	12/15/2023
890	New IT Standard	Approved	1/10/2024
891	ESH Standard Update	Approved	1/9/2024
892	Reactivate Administrative Services Document	Approved	12/20/2023
893	Waste Management Standard Update	Approved	1/9/2024
894	FI Documents Updates	Approved	1/2/2024

CCR No.	Title	Status	Approval Date
895	EMS Update	Approved	1/24/2024
896	QC Data Entry Handbook Update	Approved	1/4/2024
897	FAS Update	Approved	1/24/2024
898	New Hoists & Shafts (H&S) Form	Approved	1/9/2024
899	New H&S Documents and Updates	Approved	1/12/2024
900	Ventilation Maps Update	Approved	1/12/2024
901	New Underground Operations Documents	Approved	1/22/2024
902	H&S Form Update	Approved	1/24/2024
903	CCR Form Work Instruction (WI) Update	Approved	1/22/2024
904	Executive Leadership Documents - Initial Release	Approved	1/24/2024
905	Yates TDM Register	Approved	1/24/2024
906	Experiment Implementation Program	Approved	2/6/2024
907	Incident Investigation Report Summary	Approved	1/29/2024
908	IMSM Document Updates	Approved	2/6/2024
909	Surface Operations and Utilities (SOU) Archive Documents	Approved	2/1/2024
910	New ESH Form	Approved	2/1/2024
911	New Converted E&O Documents	Pending	
912	New ESH WI	Approved	2/1/2024
913	SOU Documents Corrections and Updates	Pending	
914	ESH SOP	Approved	2/9/2024
915	Ventilation Form Update	Approved	2/9/2024

- Completed projects
 - East Switchyard Power Cable Replacement
 - Sacred Circle Garden Project
- Other completed activities
 - Internal Process Audits
 - Human Resources
 - Surface Ops and Utilities
 - QA/QC
 - January Management Review 1/24/2024
- Nonconformances and Corrective Actions created (11/14/2023 – 2/16/2024)
 - Typical nonconformances - 10
 - Opportunities for improvement (internal audit) nonconformances - 24
 - Corrective Actions - 1

Upcoming Activities

- Upcoming projects and other activities
 - Completion of Saddle Torquing 5,6,7 locations (estimated date 3/2024)
 - Access Control Project (Phase II/III)
 - 3650L Pump Room Rehabilitation Project
 - Yates Hoist Room Roof Repair
 - Dewatering Control System
 - Accounting and Finance Internal Audit
 - Administrative Service Internal Audit
 - Communications Internal Audit
 - IMS Internal Audit (P-400, P-500, P-600, P-610, P-740, P-852, & P-912)

- In-Process projects and other activities
 - Oro Hondo Fan Project
 - 4850L UG Laboratory Expansion - Phase A Bypass Drift
 - WWTP RBC Replacement
 - COTO log reviews (continuous)
 - TDM weekly quality inspection
 - Sign-Off Set 1 to 246 in Yates Shaft to allow CAT access to the 1700L.

Surface and Underground Operations Status

Yates Shaft

Work Accomplishments

- Yates Shaft focused on lacing and blocking in the upper areas of the shaft starting below the concrete.
- Conveyance inspections were completed on all Yates conveyances and a report issued.
- Yates Top-Down Maintenance (TDM) program progressed to the 1700L station. Station work included the following: complete structural timber replacement in the shaft, clean out of area on the north side of the shaft near the water box and electrical gear, removal of old snow shed, replacement of decking in front of all conveyances, replacement of cage and skip doors, and a new Femco line that runs in the shaft and back to the station.
- Ross Shaft Foreman Kip Johnson was promoted to Yates Shaft Superintendent.
- Regular QA/QC inspections have been implemented—upper shaft inspected to catch up.
- Power installed, lights set up, and tools moved to the 1850L station for a work area.

Upcoming Activities

- Checklist complete and partial return to operations for CAT on the 1700L.
- Complete TDM to the 2750L.
- Continue TDM to reach the loose rocks below 4100L.
- Return to operations on the 4850L.

Ross Shaft

Work Accomplishments

- Ross Shaft crew safely slung over 308 separate loads to support LBNF/DUNE.
- TMI demobilization started and includes two muckers.
- Ross Shaft crew provided support to install shaft protection for the Ross brow excavation – first blast was Saturday, January 27.
- Ross Shaft crew conducted regular inspections of the shaft after TMI blasting at the brow – no issues reported. Ross brow excavation is completed, and regular loads have resumed.

Upcoming Activities

- TMI excavation demobilization.
- TMI bypass drift mobilization.
- Building and Site Infrastructure (BSI) mobilization.
- Removal of damaged monorail beams.
- Plan for remaining saddle bolt torquing.

Hoist Maintenance

Work Accomplishments

- Seimag Tecberg group annual hoist inspections were completed on all Ross and Yates hoists.
- Installed additional re-sync switches at the Ross 4850L.
- Brake adjustments were completed on the Yates ore hoist.
- New operator’s chair was installed in the Ross cage hoist operators’ compartment.
- Boxes on the cage were installed in preparation of the Seimag Tecberg wireless communication system test.

Upcoming Activities

- Yates cage rope cuts.
- Ross counterweight rope cut.
- Gear oil change on the Ross ore hoist.
- Bi-annual hoist rope non-destructive testing.
- Testing on wireless communication system.

Underground Hazard Mitigation

Work Accomplishments

- Completed installation of nitrogen generator slab at 4850L Davis Campus.
- Completed removing legacy pipe and fixing track on the 4550L.
- Completed installation of ventilation regulator on the 3950L.
- Completed cleaning out 4850L 17 Ledge Motor Barn.
- Completed cleaning out ditch on the 1700L between the Ross Shaft to the Yates Shaft crossover.

Upcoming Activities

- Complete MineStar system commissioning in Ross Shaft.
- Continue installing ground support on 4100L Yates mainline drift.
- Continue installing ground support on 4100L Yates mainline drift.
- Support DEMO-FTS on the 4100L.

Surface Operations and Utilities (SOU) Support

Facility Maintenance (Surface and 4850L) and Mobile Equipment

Work Accomplishments

- Received bids and awarded six different (3-year) contracts for various services.
- Installed new boot wash station on Yates Ramp.
- Worked with Science department staff to help train more team members on LN operations at Davis Campus.
- Created new workspaces in the Rounds Operations Center (ROC) for new mechanical engineer role and operations administrative support.

Upcoming Activities

- Working on details to post a Request for Proposal (RFP) for weed control contract.
- Planning projects for upcoming outdoor construction season.

Electrical / Cyber Infrastructure / Dewatering

Work Accomplishments

- Repaired resistive thermal device (RTD) issues with American Davidson ventilation fan.
- Reviewed bids for programmable logic controller (PLC) upgrade project.
- Several team members attended machinist training.
- Provided temporary power solutions for Yates Shaft work.

Upcoming Activities

- Continue to support dewatering controls system project.

Wastewater Treatment Plant (WWTP)

Work Accomplishments

- Yardney Filter bank successfully cleaned out.
- Supported contractor during start of Rotating Biological Contactor (RBC) Replacement Project.
- Trained new WWTP operator.
- Maintaining deep pool around 5,917 feet.

Upcoming Activities

- Assisting with upcoming PLC upgrade project.

Operations Integration and Maintenance Planning

Work Accomplishments

- Legacy locomotive drawings are now filed and organized – stored in ROC.
- Assigned vendors have been updated and work orders are underway for new service contracts.
- Additional assets added after more reconciliation with Accounting and Finance Office – current asset total is 2,435.
- Provided ManagerPlus (M+) training to multiple new hires.
- Updated preventive Maintenance (PM) for lead tests per opportunities for improvement (OFI) from electrical internal audit.
- Bin located all stock items in ROC Warehouse.
- Assisted with removal of insulation from ROC Warehouse for the Howden Fan Project.
- Assisted with organizing contractor training records for B&G service contracts.

Upcoming Activities

- Continue with cycle counting full ROC Warehouse (90% complete).
- Updating storm water lab assets in M+ to better reflect accurate locations/pictures.
- Updating Refuge Chamber PMs for ERT.
- Continue to update assets in conjunction with Finance staff and their department's Depreciation Works software.

Engineering Support

Work Accomplishments

- Supported Hoists and Shafts department and completed reassessment of the Yates Shaft timber/status. The timber replacement will now progress to the 2750L (set 419).
- SURF 4850L Laboratory Expansion: The design phase of the project was completed in January 2024. The contract with TMI to excavate the bypass drift was negotiated and awarded in February 2024. Mobilization will occur in March 2024. A 6–7-month construction effort is planned.
- Oro Hondo Backup Fan: A project closeout change order has been awarded to Howden removing the motor building gap repair, perimeter fencing, and fan discharge gutter from the scope. Separate contracts will complete this work.
- 1250L Pump Room Rehabilitation: Completed project documentation and summary selection report for the 1250L rehabilitation design. A task order has been issued for award.
- SURF Dewatering PLC Recapitalization: Advertised the RFP for the Dewatering Control System Recapitalization project on December 15, 2023. Received proposal are going through clarification and evaluation for final selection. Award is expected in March 2024.
- Ross Campus Restrooms: Developing RFP package for the WWTP procurement and permanent restrooms.
- Sanford Lab Homestake Visitor Center (SLHVC) Roof Assessment: The SLHVC Roof Assessment was completed, and a Final Report delivered February 21, 2024, identifying causes of roof leak and recommended repairs. A task order RFP was issued for the roof replacement design as recommended in the assessment report.
- Ellison Hoistroom Demolition Planning: The Ellison Hoistroom is planned to be demolished due to a partial collapse in May 2023. The Lead Historic Preservation Commission granted approval to proceed with demolition on January 17, 2024. Work is expected to begin in late spring with completion by June 30, 2024.
- Scanned and gathered coordinates for installed tracking nodes at Ross Shaft stations for the Minestar system implementation.
- Provided models to Communications Department for use in augmented reality software for the SLHVC and Education & Outreach (E&O) team.
- Completed analysis of SURF/LBNF energy usage. An analysis was performed to evaluate the existing billing apportionment method and determine if available metering data is sufficient to provide a more accurate method of billing apportionment between SDSTA and FRA.

- Developed project documentation and conceptual drawings for the Electrical Distribution Rehabilitation Phase 1 IIP project. Completed a Statement of Work for AE Services to evaluate current technologies and prepare equipment specifications that will be issued to equipment suppliers during procurement.
- Prepared an RFP for an Electrical Coordination Study of SURF. The coordination study is needed to capture the current state of the facilities electrical distribution system and ensure that appropriate fuses and circuit breakers are in use to protect the facility but prevent nuisance power outages.
- Construction of WWTP RBC replacement began mid-January. Focus of work was the demolition of the existing RBCs.
- Completed a Memorandum of Understanding (MOU) with the City of Lead regarding waterline utilities and safety rules.

Science Support Status

- The Particle Physics Project Prioritization Panel (P5) committee's report released in December endorsed LBNF/DUNE Phase I & II as well as SURF's 4850L Expansion in the context of future neutrino and/or dark matter experiments: <https://www.usparticlephysics.org/2023-p5-report/>.
- As recommended by the SURF Strategic Advisory Committee (SSAC) and (Science Program Advisory Committee (SPAC), a Science Strategic Planning Steering Committee was formed, and a kickoff meeting was held in December. The charge to the committee was issued in January, requesting a draft report by May 31, 2024.
- Elections were held successfully in February for four open positions on the SURF User Association Executive Committee. Officers will be selected during a quarterly meeting scheduled in March.
- The full roster of participants has been identified for the 5-week CETUP* 2024 summer workshop, and final invitations have been sent (total of 74 people).
- The Experiment Implementation Program document was updated to IMS format and approved.
- Plans are advancing for Ross Campus re-occupancy. In February, a laboratory custodian position was posted to restore the baseline of two FTE in preparation for Ross Campus activities.
- Davis Campus crews have largely migrated to a more consistent Tue-Fri schedule.
- Options for electric vehicle chargers at SURF are being pursued that take advantage of various rebate programs.
- Interruptions: A quick SDSTA response to Davis Campus chilled water leak minimized impact to LZ (MJD, BHUC not affected). There were no experiment issues with mid-January underground access restrictions due to extreme cold.

LUX-ZEPLIN—LZ

- Science run #3 has now accumulated over 224 days of WIMP-search data, interspersed with brief, regular calibration activities (LED, gaseous Xe-131 and Kr-83). Cross-calibration of AmBe neutron sources requires further analysis.
- Analysis indicates only modest detector characteristic corrections were required following the November power outage (no new science run).
- LZ set new world-leading constraints on ultra-heavy dark matter particles using data from the first science run: <http://arxiv.org/abs/2402.08865> (submitted to Physical Review D).
- Maintenance on one circulation compressor was completed and work on the second unit has started. During maintenance on one of the recovery compressors, a cooling water leak occurred that will require internal inspections (a spare compressor head is available onsite).
- Xenon circulation was interrupted briefly due to an issue with the chilled water connection to the backup compressor.
- The gaseous nitrogen generator shipped from the manufacturer and arrived at SURF. After testing on the surface, the unit will be moved underground to the Davis Campus where a concrete pad has been completed.
- The Davis Campus water purification system polishing resin is being shipped offsite for routine replenishment.
- Surface testing of LBNL BF3 neutron detector is complete, and the system is awaiting integration into main LZ DAQ system along with other background monitoring systems (radon, gamma rays).

MAJORANA DEMONSTRATOR—MJD

- The Ta-180m initial results were featured as a DOE Highlight: <https://science.osti.gov/np/Highlights/2024/1a>. The Exotic dark matter paper was published: [doi: 10.1103/PhysRevLett.132.041001](https://doi.org/10.1103/PhysRevLett.132.041001). The final neutrinoless double-beta decay result was the most downloaded nuclear physics paper from Physical Review Letters in 2023.
- Ta-180m data taking continues, and the collaboration recently received additional LANL funding for operation through fall 2025 (subject to the upcoming proposal call and review process).
- With construction and preparation over the past several months, all four electroforming baths are now operating and producing copper for LEGEND.
- Slow-control monitoring was restored with offsite help from LANL personnel.
- The glovebox liquid nitrogen purge dewar heater was replaced (after significant back-order delay), and use is expected later in spring (in the meantime it will be used as a shield purge backup).
- New pressure relief valves were purchased to replace aging ones on some 180L liquid nitrogen dewars.
- The facility exhaust fan motor serving the MJD fume hood in the Detector Room was replaced.
- Copper machining continues on a roughly bi-weekly schedule, with SD Mines student support since January.
- Chemistry support continues at the surface WWTP; the latest electro-winning batch started in late February.

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 materials, with additional PNNL samples expected soon. A total of 17 samples were analyzed in 2023, and more than 340 samples have been evaluated over time.
- nEXO Ge-IV detector cryocooler issues continue. Recent SDSTA efforts to resolve the issues were unsuccessful, so the high voltage is turned off until the cryocooler can be removed and shipped to the manufacturer. Personnel from the Universities of Kentucky and Alabama are planning a trip in late March to dismantle the lead shield and arrange for the cryocooler to be shipped to the manufacturer (like most others, the cryocooler is owned by SDSTA). The hoist chain associated with the Ge-IV system was damaged during a recent inspection test, and repairs have been completed.
- LBNL-managed detectors are operating well, and Virginia Tech continues remote testing of dual-crystal system.

Compact Accelerator System for Performing Astrophysical Research—CASPAR

- An NSF funding proposal was submitted for operations starting Oct 2024. The Experiment Planning Statement (EPS) for Phase 2 was received (campaigns planned through at least 2027).
- Underground trips are planned for March (SD Mines) and April (Notre Dame).

Geothermal—Demonstration of Fracture Thermal Energy Storage (DEMO-FTES) and Center for Understanding Subsurface Signals and Permeability (CUSSP)

- DEMO-FTES: PNNL personnel conducted an inventory mainly on the 4100L and arranged shipping of materials for offsite analysis: drill core (Purdue), rock and water samples (CO Mines). DOE bureaucratic issues have been resolved, and PNNL personnel are planning trips to SURF in late March and early April.
- CUSSP: A User Agreement (formerly called MOU) was signed with PNNL, and iterations continue on the EPS. 4100L activities are expected to begin Spring/Summer 2024 (SURF subcontracts are in progress), with activities planned at SURF through 2027. The date for a kickoff meeting at SURF is set for October 29-30.
- SD Mines personnel inspected the 4100L testbed site to document weeps and sample water.

Other Current Research Activities

Physics

- TESSERACT: Aside from performing assays on some materials last quarter, no recent interactions have been held with the collaboration.
- Cryogenic User Facility: A dilution refrigerator was proposed in the DOE Cooperative Agreement renewal.
- Other: The SURF geologic model was shared with physics researchers who developed a new muon flux model.

Biology

- Biodiversity: BHSU researchers collected samples from 4850L 17 Ledge and 800L sites.
- Plant Growth: The experiment is currently paused to optimize watering rates (surface and underground).
- Other: SD Mines biology researchers have proposed sampling dates in late March.

Geology

- 3D DAS: SDSTA personnel facilitated access to additional blasting reports needed for data analysis.
- Other: SD Mines Geological Engineering and Mining Engineering faculty visited underground areas and are exploring opportunities for funding.

Engineering

- Thermal Breakout: Following inspections last quarter, collar debris was removed from the 4100L vertical hole, and a test piece was lowered to ~35 feet. Crews flushed the borehole and continue to perform additional inspections related to the future heater installation.
- Environmental Monitoring: Recent work on 4850L airflow monitors included calibrating instruments at two sites and removing equipment at one site.
- Other: Following the December site visit, SDSU is evaluating site options for a high-definition climate station at SURF (installation by U.S. Army Corps of Engineers in 2025). PNNL researchers are considering SURF for potential monitoring research, with a possible site visit in April.

Quarterly Work Plan Variances

- The Quarter (November - January) ended with a CA contract-to-date underrun of \$1.9M.
- The \$3K CA underrun increase from October is due to a large power project that was budgeted in December/January and will execute in April for \$450K.
- November had an overrun of \$4K.
- December had an overrun of \$13K due to three payrolls in the month.
- January had an underrun of \$284K due to the timing of the power project funds.

Financial Status

Included in the Financial Report are the following:

- Cooperative Agreement SURF Services FY2024 (federal fiscal year) SPA Curve as of January 2024 (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 January 2024
 - 2) Comprehensive Statement of Income January 2024
 - 3) Comparative Balance Sheet – January 2024 vs. January 2023
 - 4) Comparative Statement of Income – January 2024 vs. January 2023
 - 5) Available Resources as of January 2024
 - 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 January 2024 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 January, the invoices totaled \$2,109,347 which is lower than the anticipated reimbursements of \$2,394,173 by \$284,826. Cumulative expenses are at \$103,139,909 which is lower than the budgeted \$105,087,696 by \$1,947,787.

Balance Sheet Items

- Cash in Local Checking—Total on hand January 2024 was \$2,408,904; up from last month by \$140,853. 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 \$23,056,375; This amount decreased from last month by \$246,749 with the use of the cash provided by SB35 for the 4850L lab 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 \$2,208,454; down from last month by \$470,553. Included in the balance are open invoices for; \$416,287 from Fermilab primarily from the contract for Ross Shaft Logistics Support; \$1,751,838 from the DOE for the Cooperative Agreement and the LZ project; \$14,970 from LBNL for the LZ project; \$6,425 from the SDSM&T (SD Mines) for the MJD project; \$2,382 from Thyssen Mining Incorporated (TMI) for equipment rental; \$2,036 from BHSU for a couple of E&O education grants; and \$14,516 from the Barrick-Homestake Mining Company for electrical usage reimbursement and water treatment.
- Unbilled A/R—Current balance is \$77,062. The unbilled A/R represents items that have not been billed on various contracts, in this case it was for expenses related to the CAT reimbursement. January’s balance remained unchanged from December.
- Other A/R—Current balance of \$557,366. This balance represents Interest Receivable and Miscellaneous Accounts Receivable. The balance increased by \$30,386. Activity for this month includes recording the interest accrual for January.
- Inventory/Supplies—Balance at \$3,300,161 for fixed assets being stored but not in service. This balance remained unchanged from last month.
- Inventory Warehouse/Personal Protective Equipment (PPE)—Current balance of \$494,200. 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 decreased from last month by \$17,922. 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—\$1,204,641 and prepaid other – \$611,119. Total balance of \$1,815,760 increased from last month by \$776,816. This increase is primarily due to liability insurance payments, and FRA’s share of the Owners Interest Policies (OIP) insurance costs being held.
- Fixed Assets—Current balance of \$96,576,546. Fixed assets activity since last month includes recording a pneumatic winch and two locomotive batteries – \$67,237. The net decrease of \$181,446 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) —SDSTA 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 include 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. SDSTA 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 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 our 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 \$146,097,749. This balance has increased from last month by \$31,385 which represents the net activity as listed above.

- Accounts Payable—Our Total Accounts Payable balance of \$1,978,949 at the end of the month compared to last month has increased by \$1,092,999. This increase is primarily for payments owed to Colliers Insurance for liability insurance coverage - \$868,477.
- Accrued Payroll Liabilities—Current balance of \$3,676,611 has decreased by \$59,363 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 SDSTA made a principal payment 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 our 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 increased by \$1,033,636 (from \$10,408,966 to \$11,442,602), which reflects the net activity listed above.
- Total Equity—Decreased to \$134,655,147 from the previous month’s total of \$135,657,398.
- Total Liabilities & Equity—Increased to \$146,097,749 from the previous month of \$146,066,364.

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 LBNL, Fermi National Accelerator Laboratory (FNAL), the Cooperative Agreement with the DOE Office of Science, as well as a small contract for the MAJORANA project with the SD Mines. Total revenue through January is \$21,162,107.
- Interest income recorded for the current fiscal year on State Funds is at \$208,750. 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 \$13,951,839 for the current fiscal year. Indirect Costs including fringe benefits are at \$11,755,500. Costs are higher than revenue by \$4,331,448.
- Other Income is at \$284,144 which primarily represents miscellaneous income received from TMI, scrap metal receipts, and amounts from Barrick.
- Miscellaneous Expenses and Donations is at \$3,182,895 for current year fixed assets that were purchased on federal funds through the Cooperative Agreement, transfers from the SURF Foundation for the Sacred Circle Garden, and sales at the SLHVC.
- Loss (Gain) on Sale of Fixed Assets is at \$15,433 for the current year.
- Net Income through January is at a loss of \$1,441,207.

Comparative Balance Sheet

- Total in Local Checking is lower by \$763,088 from this time last year.
- Total Cash with the State Treasurer is higher by \$11,985,444 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 \$8,315,925 primarily from the cash received from SB35 for the 4850L lab expansion phase 1.
- Total Fixed Assets are higher by \$3,504,197 when comparing the two time frames. The biggest change was in fixed assets purchased on the Cooperative Agreement federal funds – an increase of \$3,919,371; primarily from finalizing the tuckpointing and roof drain project, finalizing the power cables east switch yard project, purchase of the deep well pump and motor, purchase of a JCB forklift/loader, and construction of the water treatment filtration building. The second biggest change was in work in progress – an increase of \$1,950,926; 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 \$1,855,438.

- Asset Retirement Obligation Deferred Outflows is being reported for \$1,129,638. Also, 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 fiscal year 2023 entries.
- Xenon purchased increased by \$19,694 due to a correction posted in February 2023 regarding the sale of some excess amounts last year.
- In summary, Total Assets have increased by \$6,381,597.
- Total Current Liabilities are higher by \$381,679 when comparing the two timeframes. Total Current Liabilities are 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 \$12,160,450, primarily due to the entry of the Restricted SB35 Appropriation for the 4850L expansion phase 1.
- Investment in General Fixed Assets has increased by \$3,504,197 for the various additions of fixed assets and projects purchased on federal funds, and work in progress being reported.
- Unrestricted Funds are lower by \$1,000,956 when comparing the two timeframes.
- Total Equity has increased by \$14,663,692 from this time last year.
- In summary, Total Liabilities & Equity have increased by \$6,381,597.

Comparative Profit/Loss

- Total Revenue for year-to-date January 2024 compared to year-to-date January 2023 has increased by \$786,368. This increase is primarily an increase in activity on DOE subcontracts. Direct Costs, and Indirect Costs for year-to-date January 2024 compared to this time last year shows a combined increase of \$2,900,067. Net Income/Loss for the comparative time periods shows a decrease of \$3,277,466.

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, \$3,072,555 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 January by \$542,222. 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 \$2,480,557.

Human Resources

Projects:

- Attracted, selected, and hired a Program Manager for The Institute for Underground Science at SURF.
- Paid a Holiday bonus to SDSTA staff the first pay period in December.
- Earned a reduced tax rating of 0% for the South Dakota Reemployment Insurance—a decrease for 2024.
- Earned a reduced experience rating from 0.91% to 0.85% for SDSTA’s Worker’s Compensation insurance plan—a decrease for 2024.
- Replaced kiosks with new Paylocity timeclocks facility-wide.
- Introduced new compensation philosophy to SDSTA staff.
- Made market adjustments to SDSTA employee pay on January 12, 2024.
- Made equity adjustments to SDSTA employee pay on February 9, 2024.

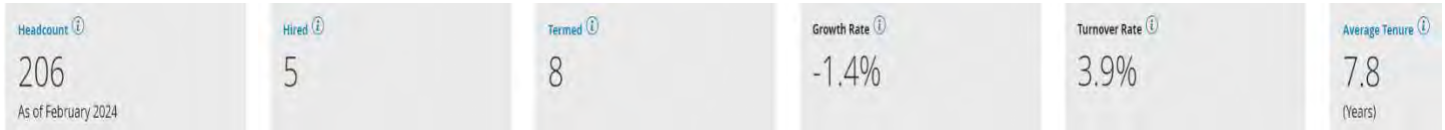
- Conducted on-site Reasonable Suspicion Training for all ‘People Leaders’.
- Continuing to implement Payscale’s Job Description Manager project.
- Negotiated 2024 employee benefit annual renewal with insurance carrier.

Hired: 5

Termed: 8 (5 voluntary; 3 involuntary)

Position Changes: 2 promotions

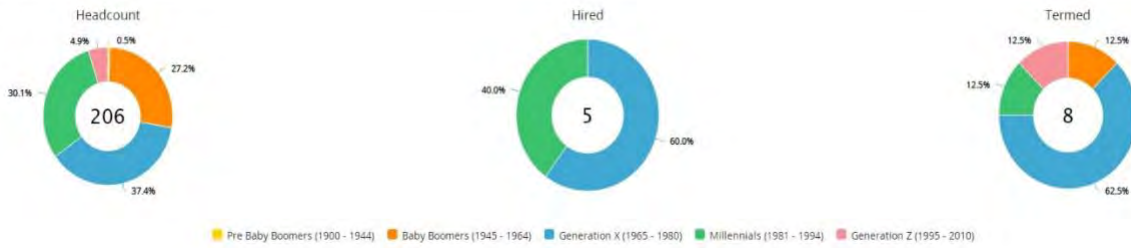
Data:



Gender (Legal) at a Glance



Generation at a Glance



Ethnicity at a Glance



Professional Staff Services – Subcontract No. 607915

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

- Cold Box Gaseous Nitrogen Control System—A control system is being developed to control the flow of gaseous nitrogen for use in the LBNF/DUNE cold boxes. The system will modulate temperature of the LBNF/DUNE cold boxes from room temperature (approximately 300°K) to 90°K.
- Created models and drawings for the loading of cryostat L-beams into Ross Shaft for the cryostat installation.

LZ Operations Phase I – Subcontract No. 7525117

Other Experiment Support

LUX-ZEPLIN (LZ)

- Gaseous Nitrogen Generator—The gaseous nitrogen generator was delivered from Generon and plans are being prepared to complete the installation.
- Department of Transportation (DOT) 4B Cryopumping Cylinders—Two of four DOT 4B cryopumping cylinders were completed and implemented to consolidate the LZ gaseous radioactive waste.
- The liquid nitrogen Adapter was designed, fabricated, and implemented in the Yates Headframe to improve the filling process of the 1100L mobile dewar.
- Rebuild of Recovery Compressor 1 Stage 1 head was completed and successfully tested.

Indirect Funded Activities Status

Contracts Status

Department of Energy (DOE) subcontracts to SDSTA

US Department of Energy, Office of Science

- SDSTA received modification #34 on the Cooperative Agreement for *Incremental Funding*.
- SDSTA received modification #35 on the Cooperative Agreement for *Incremental Funding*.
- SDSTA received modification #2 for the *SDSTA Project for LUX-ZEPLIN (LZ) Operations Support*.

Fermi Research Alliance

- SDSTA received a Supplemental Agreement (SA #4) on contract #671265 *Professional Staff Services in Support of the Long Baseline Neutrino Facility Far Site Conventional Facilities Project* for Incremental Funding.
- SDSTA submitted an updated proposal for *General Site Services*.

Lawrence Berkely National Lab

- None.

Summary of Contracts Awarded by SDSTA in December 2023 – February 2024:

Contract No.	Contractor/Vendor	Type	Project
2020-05	West Plains Engineering	TSK#10	1250L Pump Room Rehabilitation
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
2022-40	Paylocity	CO#1	Add Timeclock and Monthly Service
2022-24	RCS	CO#5	Concrete Barriers
2023-38	Rylan Sprague	NEW	Consulting Services
2023-37	Hills Toilet Service	NEW	Portable Restroom Sanitation Services
2020-06	TSP	TSK#5	Ross Dry Remodel
2023-34	Thyssen Mining	NEW	4850L UG Lab Expansion
2023-35	Lemony	NEW	Rebrand Introduction and Collateral Roll Out

- **Purchase Orders (POs):** 684 POs were issued December 1 – February 29 totaling **\$1,346,223.68**.
- **Warehouse Inventory:** Warehouse inventory as of February 29, 2024 totaled **\$240,322.32**.

Outreach and Culture Status

- Planning for Deep Roots, the speaker series in conjunction with Čhaŋgléška Wakǰáŋ is underway. Sequoia Crosswhite will be featured at the Deep Roots on June 12, along with a planting event for SDSTA employees and the surrounding community.
- Working alongside Cultural Advisory Committee (CAC) Chair Rylan Sprague and Robin Butterbaugh and Lora Perkins at SDSU’s Native Plant Initiative to coordinate the planting of Čhaŋgléška Wakǰáŋ and areas around the Sanford Lab Homestake Visitor Center (SLHVC).
- Assisting The Institute for Underground Science at SURF in assuring accessibility needs and accommodations are addressed for the CETUP* workshop this summer.
- Working alongside the SLHVC to coordinate visitation to Čhaŋgléška Wakǰáŋ this summer. Visitors will have access via vans from SLHVC, similar to how hoistroom tours are currently conducted.
- The Star Knowledge Working Group continues to meet, and its last meeting was held January 20. Participants are currently exploring connections to astrophysics research to Lakota ways of knowing, and how to properly highlight these connections at SLHVC.
- The Lunch and Learn programs have continued. The next Lunch and Learn will feature SDSTA Hoists and Shafts Director Wendy Straub on April 11.

- Continued to work with SLHVC to update materials for public education, including the video script, photo frieze, and interactive activities. Work is also being done to improve accessibility.
- The next Coffee Break will be in April in conjunction with the All Hands meeting.
- Outreach and Culture staff 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 National Science Foundation (NSF) Grant geared at increasing Indigenous STEM education and career readiness opportunities. The South Dakota and North Dakota teams are hosting a teacher professional development in Fort Yates, ND June 4th through 6th. Staff have been working with CIRCLES team members and the South Dakota CIRCLES advisory committee to develop the professional development.

Education and Outreach (E&O) Status

K-12 Education and Outreach

Curriculum units

- In December 2023 through February 2024, 24 curriculum units were utilized and returned from districts in South Dakota, impacting the science learning of 1,462 students.
- Currently there are six curriculum units being used out in classrooms impacting the learning experiences of 271 students.

Classroom presentations

- In December 2023 through February 2024, presentations have been made in 17 school districts in South Dakota and North Dakota serving 2,779 students.
- The E&O Team also supports schools with their family STEM nights and career fairs. In February 2024, E&O staff was in Meade County for their annual career fair, reaching 200 students from several regional school districts.

Professional Development (PD)

- In January 2024, E&O launched the Powerful & Productive Discourse in K-12 Mathematics course for a group of 16 educators. The course meets five times over the course of the Spring semester.
- In January and February 2024, the E&O team provided 144 people hours of professional development for educators at the SD STEM Education Conference for math and science teachers as well as the SD Technology Education Association Conference.

Undergraduate

- In December 2023 through February 2024, SDSTA Science Education Specialists Julie Dahl and Ashley Armstrong worked with 72 pre-service educators (40 from University of South Dakota and 32 from Northern State University) to explore a SURF curriculum unit and talk about best practices in science teaching.

Other

- Registration is now open for Summer 2024 teacher workshops. Currently there are 56 educators registered with 23 of them coming from reservation schools in South Dakota.
- Eight Davis-Bahcall Scholars have been selected for the Summer 2024 program. A press release will be made in the upcoming month.
- 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 – February 29, 2024

Communications Status

- The Communications department is hiring a replacement for the communications specialist.
- Communications is collaborating with *Click Rain Lemonly* to streamline brand and brand messaging.
- Members of the team participated in the selection process for the 2024 SURF AiR.
- Communications represented SURF at the January Black Hills Citizen Advisory Board meeting.
- Work continues populating the new SURF website, which will launch after the April 24 All Hands.
- Communications provided technical support and created assets for the launch of The Institute for Underground Science at SURF.
- The CORES award was presented on January 25 to the South Dakota Mines Museum of Geology.
- Neutrino Day planning is well on its way for the July 13 event in Lead.
- New SURF photos and description cards are displayed at the Rapid City Regional Airport.
- A draft of the Site Access Request Form (SARF) is completed.
- Final trademarks documentation has been submitted for SURF, Neutrino Day, and the Institute logos.
- Designed and created materials for SD Tourism Conference for the SLHVC.
- Designed and created video and print assets for the SURF SD Legislative reception in February.
- Hired summer 2024 communications intern Kate Shelton.
- Planning taking place to implement new digital signage across SURF and SLHVC.
- Began a process of crisis communication planning with our counterparts at Fermilab.

Community Outreach/Media/Site Visits/Presentations

- Jan. 4 – Met with Lead Mayor Ron Everett.
- Jan. 5 – News conference for SURF support of the Lead Community Center.
- Jan. 5 – KELO reporter Tyler Loudner met with Mike Headley and Mike Ray prior to running a news story about the work being done at SURF.
- Jan. 9 – Met with Lead Area Chamber of Commerce Director Jami Beebe.
- Jan. 10 – Communications and leadership met with Wendy Pitlick, BH Pioneer Press, to provide insight for a story around outreach and culture at SURF.
- Jan 21 – Attended SD Tourism Conference in Pierre.
- Jan. 12 – Interview held with Austin Goss and Mike Headley for an article in The Dakota Scout.
- Jan. 25 – Deep Talks community event at the SLHVC where CORES Award was presented.
- Feb. 2 – Met with Jodi Schwann about SURF and opportunities with newly created Black Hills Biz magazine.
- Feb. 7-8 – In Pierre SD meeting with legislators and hosting a legislative reception highlighting economic, education and science value of SURF.
- Feb. 8 – Deep Talks community event showed documentary Howasteya Oyuspapi. <https://sanfordlab.org/event/deep-talks-howasteya-oyuspapi-capturing-their-good-voices> and Q & A with Dr. Rosie Sprague and Dr. Urla Marcus.
- Feb. 16 – Met with Missy Sinner, marketing director for the South Dakota GOED on potential collaboration on high-tech related economic development messaging. A new video campaign about SURF's role in boosting the state economy is being undertaken by the GOED.
- Feb. 29 – Met with Fermilab, Deb Sebastian and Zach Burton on crisis communication planning and documentation.
- Mar. 8 – Met with Lori Frederick of Rushmore Region Economic Development Alliance and Elevate Rapid City to foster future collaboration.

Upcoming Community Outreach/Media/Site Visits/Presentations

- Ask a Scientist and Pi Day celebration on March 14.
- Deep Talks: Fermilab update on March 18 with LBNF FSCF Project Manager Michael Gemelli.
- Deep Talks: SURF update on April 4 with SDSTA Executive Director Mike Headley.
- Several presentations scheduled between March 5 and May 15 in Spearfish, Madison, Yankton, Sioux Falls, Watertown, Custer, Rapid City, and Brookings.

Video, Web, Graphics

- Developed three augmented reality (AR) experiences currently being soft launched and tested at SLHVC: [Open Cut](#), [LZ](#), [DUNE](#)
- Developed and created compelling videos about SURF to use in the region, across the state and around the world.
 - [SURF Economic Impact](#)
 - [What is SURF?](#)
 - [Institute Launch](#)
 - [Sanford Lab Homestake Visitor Center](#)
- Faces of SURF
 - [Derek](#)
 - [Pam](#)
- Site delivery of beams for DUNE
 - [DUNE Beam Delivery](#)

Photos of recent events/milestones are included as Appendix C.

News Coverage

- Our media tracking platform, Meltwater, shows SURF received 1,180 media mentions so far this quarter (January-March) with an advertising value equivalency of \$15.2 million.
- National and international press coverage includes the New York Times, MSN, Yahoo, Business Insider and Tencent News (based in Asia), that are among the top media outlets covering SURF in the last three months—along with many others.
- Major covered stories include the P5 report, DUNE cavern completion, carbon sequestering microbes, and CASPAR’s relationship to the James Webb Space Telescope.
- Multiple interviews for SURF were completed with local media, including KNBN News Center1, South Dakota Public Broadcasting, BH Pioneer, KOTA, and others. Numerous stories have been published this quarter in the local press on the range of science at SURF—the news coverage mirrors articles featured in SURF’s Deep Thoughts newsletter.
- The social media post on the selection of Marty Two Bulls Jr. as the 2024 Artist in Residence is the most liked social post of all time for SURF platforms. The SURF Facebook post has 2,702 likes with a reach of more than 121,000 people as of this time.

A sampling of the many news articles mentioning SURF since December

- [Scientists Discovered Tiny Underground Minions That Transform CO2 Into Stone](#), by Darren Orf, Popular Mechanics, Feb. 20, 2024
- [SURF names Marty Two Bulls Jr. as its 2024 Artist in Residence](#), by Lori Walsh, Ellen Koester, and Ari Jungemann, SDPB Radio, March 1, 2024
- [Scientists are building tunnels under South Dakota for a \\$3 billion experiment that could solve some of the universe's grandest mysteries](#), by Jenny McGrath, Business Insider, Feb. 28, 2024
- [SD Science and Technology Authority celebrates 20 years](#), BH Pioneer, Feb. 28, 2024
- [The elemental poetry of an underground particle accelerator in South Dakota](#), Salon.com, Yahoo News, and MSN.com, Jan. 26, 2024
- [Particle Physicists Offer a Road Map For the Next Decade](#), The New York Times, Dec. 8 2023
- [China’s new dark-matter lab is biggest and deepest yet](#), Nature, Jan. 22, 2024

Information Technology Status

Projects

- Upgraded Unipoint server software and installed updated client on laptops.
- Worked with Johnson Controls and SDSTA Security on CCure server restoring access control on doors.
- Updated licenses on GagePack, Unipoint, and Veeam servers.
- Completed 99% inventory on ROC, Yates Hoist, 4100L, Oro Hondo, Ross, ERT, and SLHVC.
- Configured new VM for PLC network access.
- Attended multiple cyber-security virtual conferences.
- Implemented Duo Multi-factor Authentication (MFA) on SDSTA production servers.

- Installed new uninterruptible power supply (UPS) for power redundancy in Ross Dry network closet.
- All primary trainings for Keeper password manager have been completed.
- Formal IT Offboarding Form created to ensure a consistent and thorough offboarding process.

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.

December 2023 – February 2024 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 421 visitors from December 1 to February 29. 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 completed activities essential to SURF’s operations performing support tasks for several SDSTA departments including ISO document conversion and copyediting a variety of documents. Assistance continued with the coordination of office moves and furniture procurement. Interviews were conducted in February to backfill the open Administrative Assistant position. Multimedia Design Lead Matt Kapust completed a draft SURF Access Request Form and feedback was provided. A mid-December meeting is being rescheduled in early spring 2024 with Johnson Controls Inc. and SDSTA staff to discuss best methods to populate key fields from the SARF into SURF’s new C-CURE 9000 access control system. Trademark documentation was submitted for SURF, Neutrino Day, and the Institute logos and the internal spreadsheet to track trademark deadlines has been updated.
- Events and meetings onsite have remained steady through winter. The Administrative Services team provided logistical support for the following:
 - Dec 14 – SDSTA Board Meeting; Foundation Board Meeting; The Institute for Underground Science at SURF Launch held at Elevate Rapid City
 - Dec 21 – E&O Coffee Break
 - Dec 28 – Spearfish High School Site Visit
 - Jan 3 – Dewatering Pre-Bid Underground Site Visit
 - Jan 11 – Cultural Advisory Committee, mostly virtual
 - Jan 16 – Quarterly EOS Summit with Mike Roth
 - Jan 24 – All Hands Meeting and Coffee Break; Monthly Management Review
 - Feb 1 – BHSU Microbial Genomics Class Site Visit
 - Feb 6-8 – CAT Travel Team and Guests Site Visit
 - Feb 13 – SD Mines UG Site Visit with CAT
 - Feb 16 – Colliers Insurance/Ben Cooper Site Visit
 - Feb 26 – Hazwoper Refresher Training
 - Feb 27-Mar 1 - Fermilab/CERN Steel Erection Bid Walk Cage Runs with Vendors
 - Mar 4-7 – DOE SURF Operations Cooperative Agreement Renewal Site Visit

- Administrative support continues to be provided to the SDSTA Board of Directors. Their quarterly meeting was held on December 14, 2023. Board materials and meeting minutes were posted to the Boards & Commissions portal. Preparations began for the next quarterly meeting on March 21. Also, planning has begun for the Foundation quarterly board meeting with Director Michelle Kane.
- In addition, the SDSTA team is preparing for upcoming events in March/April and include the following: the Entrepreneurial Operating System (EOS) quarterly summit with consultant Mike Roth on April 9, All Hands Meeting on April 25, and various site visits. Logistics planning continues with The Institute Program Manager Stacie Granum for the 2024 Center for Theoretical Underground Physics and Related Areas* (CETUP*) topical workshops to be held in Lead June 17-July 19, 2024—There are 74 registrants. The Neutrino Day planning committee continues to meet in preparation for the free annual science festival to be held on July 13.

**SANFORD LAB HOMESTAKE
VISITOR CENTER**

Sanford Lab Homestake Visitor Center (SLHVC) Status

Outreach and Programming

- SLHVC provided the venue for the Lead Area Chamber of Commerce’s Winterfest VIP fireworks event, including live music.
- There was a soft launch of new augmented reality (AR) technology options at the SLHVC, allowing team members to interact with guests and other SURF employees for feedback and to brainstorm associated activities and talking points.
- Collaborated on accessibility strategic plan and has completed the first phase.
- SLHVC set up a booth at the state tourism conference in January which emphasized Neutrino Day and tourism opportunities.
- SLHVC worked to update website materials prior to the transition to new website. As new pages are developed, the team has been reviewing them and providing edits to improve the user experience.
- In January, the SLHVC hosted a Deep Talks with Dr. Tanvi Govil of SD Mines. She presented on “CO2 Solutions- Driven by microbes isolated from deep mines.” This Deep Talk had approximately 70 people in attendance, and the research has received much media attention.
- In February, the SLHVC hosted a Deep Talks with Dr. Urla Marcus and Dr. Rosie Sprague from Black Hills State University. Along with student representatives from the Lakota Omniciye, they presented their NEH-funded documentary, “Howasteya Oyuspapi: Capturing their Good Voices.” Around 75 people were in attendance that evening.
- SLHVC is working with HR to hire summer seasonal positions, including a Guest Service Associate and Trolley Driver.
- Neutrino Day planning is fully underway with Save the Dates sent out to past participants and new potential partners.
- Communications is helping SLHVC develop materials to recruit tour bus groups for the Summer 2024 season.
- A new docent training program is in development, aiming to strengthen the onboarding process for seasonal hires.
- Transitioned with Science Festival Alliance to Science Events, a community of practice lead by the Experimental Practice team at the MIT Museum, supported by the Simons Foundation. This professional network is comprised of organizations planning and putting on science events and festivals.
- The iPAGE cohort participated in the January workshop, spending an extra day in the Twin Cities to visit additional science museums to learn more about exhibit development, programming, outreach, and assessment from others in the field.
- The Communications and SLHVC teams worked on an internal launch of the new logo, including development of online staff merchandise catalog.
- With the anticipated launch of the new logo, focus has been placed on new brand product development at the museum store.
- The SLHVC classroom continues to be utilized for meetings and trainings for Fermilab, Caterpillar, MSHA, SD Mines, and the Lead Area Chamber of Commerce.
- The SLHVC served as the Lead polling location for a special county election in December.

SURF FOUNDATION
501(c)(3)

SURF Foundation Status

Work Accomplishments

- Moving The Institute Forward
 - The Foundation contributed to the search and hiring of Stacie Granum as the new Institute Program Manager, who started her role in late December.
 - The Nobel Day Celebration event, marking the Institute's public launch, was successfully held on December 14, 2023, at Elevate, with the Foundation assisting with setup, logistics, invitations, and presentation.
 - Various funding opportunities have been evaluated for CETUP* 2024, scheduled to commence on June 17, 2024, and efforts continue to secure support and funding.
 - Confirmation has been received for hosting the QuarkNet workshop, a K-12 teacher training event, at the Institute in May 2024. The Foundation has also initiated research to identify additional funding needs for the event.
- Progress of the Čanĝlěška Wakħáj Garden Project
 - A planting day is scheduled for June 12, 2024, which will include volunteers from the Northern Hills Master Gardeners.
 - Active efforts are underway to refine strategic messaging and secure funding for the Deep Roots programming, including a potential grant from the SD Humanities Council and exploration of other funding avenues.
- Grants and Event Planning
 - Although the TAP Tourism Grant was not awarded to the SURF Foundation, constructive feedback was received from GOED and plan to reapply in April 2024.
 - Sponsorship levels for Neutrino Day 2024 have been finalized, and outreach to sponsors has begun.
 - In collaboration with the SURF AiR coordinator and Communications department, a proposal has been drafted for future grant submissions to the SD Arts Council.
 - A meeting with the SD Community Foundation was conducted to explore grant opportunities for 2024.
- Donor / Potential Donor Communications
 - The Board was provided with updated talking points, fresh fundraising ideas, and an overview of the Friends of SURF program.
 - An example outreach email was developed and shared with several board members for testing purposes.
 - Following a Deep Talks event, as a test of engagement, the Foundation conducted check-ins and followed up with attendees, with plans to continue such marketing activities.
- Outreach and Public Affairs Activities
 - The Foundation has continued to maintain a strong presence in various forums, including the SD CEO Women's Business Center and local chamber and economic development events.
- Continuing Education
 - Commitment continues to ongoing professional development by training in project management tools, donor databases, and SURF's internal platforms.
 - Prioritizing the building and maintenance of relationships with donors continues to ensure their sustained engagement and support.
- Foundation Internal Processes
 - The SURF Foundation Director currently functions as the only staff member at the Foundation with support from Administrative Services, as requested.
 - A Governance Committee meeting was hosted to discuss the potential expansion of the Foundation board.
 - Our active participation in the Internal SURF Donation Committee has enhanced the Foundation's outreach and collaboration efforts.

- Grants and Highlighted Donations Received

- A grant of \$10,000 from Black Hills Energy has been allocated towards the enhancement of visitor engagement with a new Multimedia Screen at the SLHVC.
- Private donations have contributed over \$6,500 for internships and more than \$1,000 for monthly public outreach events.

The Institute for Underground Science at SURF

The Institute Status

Work Accomplishments

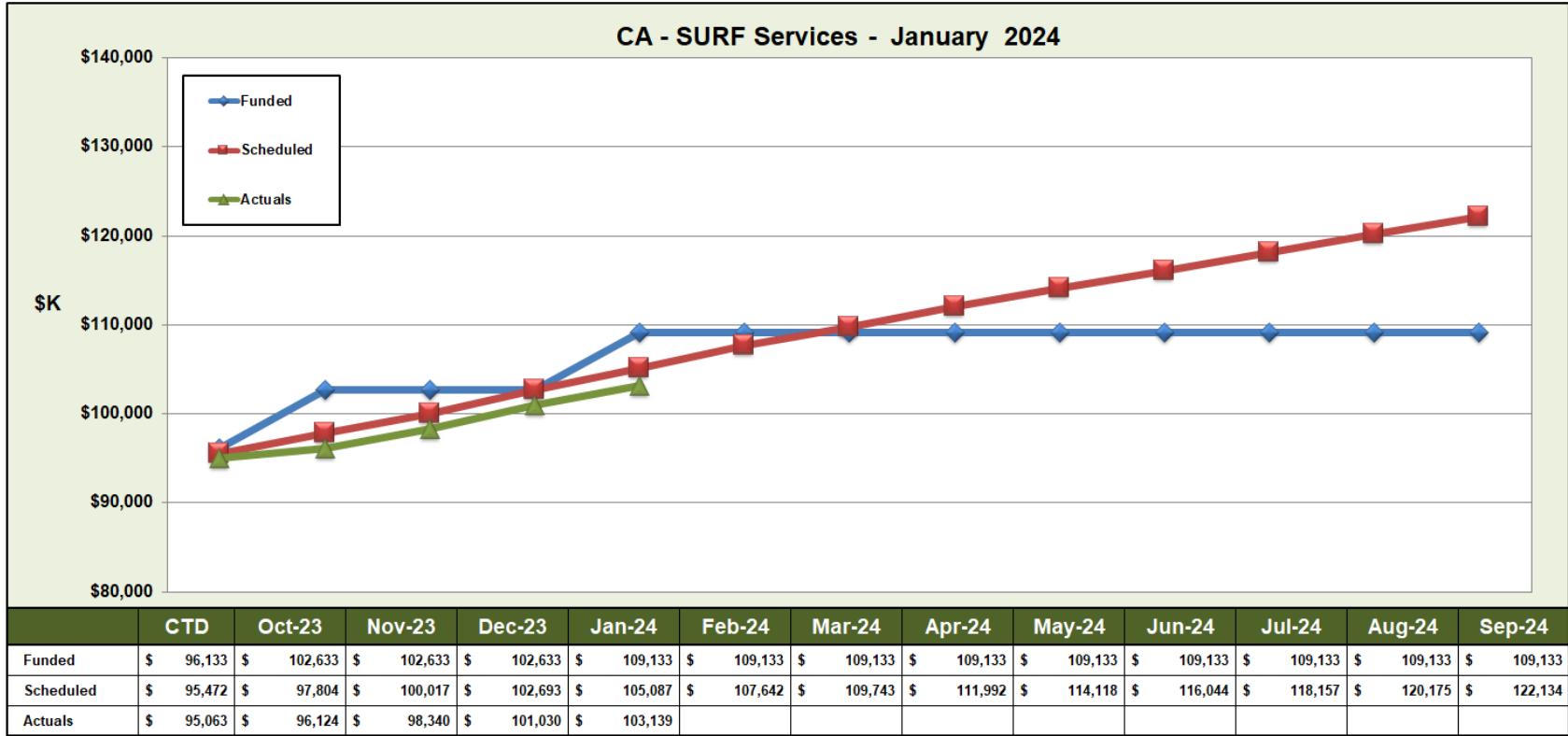
Outreach and Programming

- Higher Ed Connections Workshop
 - The purpose is to foster collaboration, share knowledge, and support SD universities.
 - Lead academic faculty from South Dakota universities, including tribal colleges, are invited.
 - Planning is in progress for a launch date of April 4.
- QuarkNet Lead Teacher Cornerstone Workshop
 - The purpose is to support science teachers to bring real particle physics into their classrooms. The Institute/SURF partners with BHSU as a designated QuarkNet center.
 - Planning is in progress and will take place from May 30 through June 2.
 - Ten lead teachers from around the nation are expected, plus staff from Fermi and Notre Dame.
- Science Talks for Researchers
 - The purpose of this series of talks is to engage the science community via colloquia and discussion to foster interdisciplinary connections.
 - Planning is in progress with a launch date of May 8. Participation will be available both in-person and virtually.
- Center for Theoretical Underground Physics and *Related Areas (CETUP*) Workshop
 - The purpose is to promote organized research in physics, cosmology and astrophysics, geoscience, and other fields related to underground science and collaborative research in a dynamic atmosphere of intense scientific interactions.
 - Planning is in progress and the workshop will take place from June 17 through July 19.
 - Seventy-four scientists and researchers are expected to attend.
- Fostering relationships within area education, tourism, and business sectors to raise awareness and develop partnerships to enhance program participant experiences.
- Collaborating with the SDSTA Communications team to further develop the brand messaging and content for The Institute website and other materials.
- Supporting fundraising efforts through outreach and grant research.

APPENDIX

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**Business Services Department
Appendix A**



DOE SDSTA Fiscal Year 2024 SPA Curve

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Financial Summaries Appendix B

REPORT DATE 2/09/2024

SOUTH DAKOTA SCIENCE & TECHNOLOGY

PAGE 0001

DIVISION: ALL

BALANCE SHEET

ASSETS

		AS OF 01/31/24
AS OF 01/31/24		
CURRENT ASSETS		
First Interstate Checking	\$	2,408,903.72

Total in Local Checking		2,408,903.72
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		11,775,512.35
SD Treas: Experiments		570,118.85

Total with SD Treasurer		23,056,374.76
Billed A/R		2,208,454.25
Unbilled A/R		77,061.99
Other A/R		557,365.95
Inventory - Supplies		3,300,161.33
Inventory - Warehouse		494,199.59
Other Current Assets		1,815,759.79

Total Current Assets		33,918,281.38
FIXED ASSETS		
Land, Underground & Other		12,793,484.40
Bldgs & Infrastructure		19,215,582.35
Improvements		63,312,036.57
Work in Progress		6,039,722.86
Computer Equipment		366,435.18
Equipment & Fixtures		10,282,282.28
DOE Property Transfer		10,395,464.03
Accum Depr & Amort		(24,575,050.20)
DOE Prop. Accum Deprec.		(1,253,411.27)

Total Fixed Assets		96,576,546.20
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	\$	146,097,748.85
=====		

DIVISION: ALL

BALANCE SHEET

LIABILITIES & EQUITY

		AS OF 01/31/24

CURRENT LIABILITIES		
Accounts Payable	\$	1,974,299.34
Other Payables		4,649.19

Total Accounts Payable		1,978,948.53
Accrued Payroll Liab		1,697,662.07

Total Current Liabilities		3,676,610.60
OTHER LIABILITIES		
LT Xenon Notes Payable		3,121,190.01
Pension Deferred Inflows		3,447,916.22
Asset Retirement Obligation		1,196,884.99

Total Other Liabilities		7,765,991.22
EQUITY		
Restricted: Indemnification		7,500,000.00
Restricted: SB35 Appropriation		11,775,512.35
Restricted: Mine Closure		1,567,504.94
Restricted: Pension		2,375,188.27
Restricted: Experiment. Int.		570,118.85

Total Restricted Funds		23,788,324.41
Investment in Gen FA		96,576,546.20
Unrestricted Funds		14,290,276.42

Total Equity		134,655,147.03
		=====
TOTAL LIABILITIES & EQUITY	\$	146,097,748.85
		=====

ALL

STATEMENT OF INCOME

FOR THE PERIOD ENDING 1/31/2024

	YR-TO-DATE

REVENUE	
DOE Subcontracts	\$ 21,162,107.11
Checking Interest	5,034.42
Interest Income	208,749.69

TOTAL REVENUE	21,375,891.22
DIRECT COSTS	
Direct Labor	5,444,983.65
Board of Directors	7,092.91
Capital Outlay >\$5K	1,398,482.00
Contractual Svcs	3,961,881.43
Inventory	165,636.67
Supplies	1,351,602.64
Travel - Domestic	103,466.10
Travel - Foreign	12,773.21
Utilities	1,212,647.26
Other Direct Costs	160,365.63
Unallow/Unbill Costs	132,907.45

TOTAL DIRECT COSTS	13,951,838.95
INDIRECT COSTS	
Fringe Benefits	5,335,955.50
Overhead	6,419,544.30

TOTAL INDIRECT COSTS	11,755,499.80

GROSS PROFIT/LOSS ()FROM OPERATIONS	(4,331,447.53)

OTHER INCOME	
Water Treatment	160,139.06
Miscellaneous Income	22,615.50
Other Operating Income	101,389.49

TOTAL OTHER INCOME	284,144.05
OTHER EXPENSES	
Misc. Expenses & Donations	(3,182,895.17)
Loss (Gain) on Sale of FA	15,282.62
Other Unallowable Expense	344,790.64
Reclass Incr Net Assets	216,724.98

TOTAL OTHER EXPENSES	(2,606,096.93)
	=====
NET INCOME/LOSS ()	\$ (1,441,206.55)
	=====

DIVISION: ALL

COMPARATIVE BALANCE SHEET

ASSETS

	AS OF 01/31/24	AS OF 01/31/23	\$ CHANGE	% CHANGE
CURRENT ASSETS				
First Interstate Checking	\$ 2,408,903.72	\$ 3,171,991.84	\$ (763,088.12)	-24.06%
Total in Local Checking	2,408,903.72	3,171,991.84	(763,088.12)	-24.06%
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	11,775,512.35	-	11,775,512.35	100.00%
SD Treas: Experiments	570,118.85	650,766.50	(80,647.65)	-12.39%
Total with SD Treasurer	23,056,374.76	11,070,931.16	11,985,443.60	108.26%
Billed A/R	2,208,454.25	3,147,466.72	(939,012.47)	-29.83%
Unbilled A/R	77,061.99	4,411.04	72,650.95	1647.03%
Other A/R	557,365.95	3,229,482.11	(2,672,116.16)	-82.74%
Inventory - Supplies	3,300,161.33	3,150,678.11	149,483.22	4.74%
Inventory - Warehouse	494,199.59	439,646.62	54,552.97	12.41%
Other Current Assets	1,815,759.79	1,387,749.25	428,010.54	30.84%
Total Current Assets	33,918,281.38	25,602,356.85	8,315,924.53	32.48%
FIXED ASSETS				
Land, Underground & Other	12,793,484.40	12,743,473.13	50,011.27	0.39%
Bldgs & Infrastructure	19,215,582.35	19,321,800.42	(106,218.07)	-0.55%
Improvements	63,312,036.57	62,813,135.62	498,900.95	0.79%
Work In Progress	6,039,722.86	4,088,796.90	1,950,925.96	47.71%
Computer Equipment	366,435.18	381,499.81	(15,064.63)	-3.95%
Equipment & Fixtures	10,282,282.28	10,705,072.13	(422,789.85)	-3.95%
DOE Property Transfer	10,395,464.03	6,476,092.97	3,919,371.06	60.52%
Accum Depr & Amort	(24,575,050.20)	(22,719,612.55)	(1,855,437.65)	8.17%
DOE Prop. Accum Deprec.	(1,253,411.27)	(737,909.69)	(515,501.58)	69.86%
Total Fixed Assets	96,576,546.20	93,072,348.74	3,504,197.46	3.77%
OTHER ASSETS				
Asset Retirement Obligation Deferred Outflows	1,129,637.92	1,129,637.92	-	0.00%
Asset Retirement Obligation Accumlated 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	8,668,139.27	19,694.19	0.23%
Total Other Assets	15,602,921.27	21,041,446.15	(5,438,524.88)	-25.85%
TOTAL ASSETS	\$ 146,097,748.85	\$ 139,716,151.74	\$ 6,381,597.11	4.57%

DIVISION: ALL

COMPARATIVE BALANCE SHEET

LIABILITIES & EQUITY

	AS OF 01/31/24	AS OF 01/31/23	\$ CHANGE	% CHANGE
CURRENT LIABILITIES				
Accounts Payable	\$ 1,974,299.34	\$ 1,598,011.62	376,287.72	23.55%
Other Payables	4,649.19	217.75	4,431.44	2035.10%
	-----	-----	-----	-----
Total Accounts Payable	1,978,948.53	1,598,229.37	380,719.16	23.82%
Accrued Payroll Liab	1,697,662.07	1,696,701.94	960.13	0.06%
	-----	-----	-----	-----
Total Current Liabilities	3,676,610.60	3,294,931.31	381,679.29	11.58%
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	11,442,601.82	19,724,696.25	(8,282,094.43)	-41.99%
EQUITY				
Restricted: Indemnificati	7,500,000.00	7,500,000.00	-	0.00%
Restricted: SB35 Appropriation	11,775,512.35	-	11,775,512.35	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.	570,118.85	650,766.50	(80,647.65)	-12.39%
Restricted: Foundation	-	-	-	0.00%
	-----	-----	-----	-----
Total Restricted Funds	23,788,324.41	11,627,874.58	12,160,449.83	104.58%
Investment in Gen FA	96,576,546.20	93,072,348.74	3,504,197.46	3.77%
Unrestricted Funds	14,290,276.42	15,291,232.17	(1,000,955.75)	-6.55%
	-----	-----	-----	-----
TOTAL EQUITY	134,655,147.03	119,991,455.49	14,663,691.54	12.22%
	=====	=====	=====	=====
TOTAL LIABILITIES & EQUITY	\$ 146,097,748.85	\$ 139,716,151.74	\$ 6,381,597.11	4.57%
	=====	=====	=====	=====

COMPARATIVE STATEMENT OF INCOME

FOR THE PERIOD ENDING 1/31/2024

	YEAR TO DATE	PRIOR YEAR TO DATE	\$ CHANGE	% CHANGE
REVENUE				
DOE Subcontracts	\$ 21,162,107.11	\$ 20,518,699.23	\$ 643,407.88	3.14%
Checking Interest	5,034.42	6,108.96	(1,074.54)	-17.59%
Interest Income	208,749.69	64,715.19	144,034.50	222.57%
TOTAL REVENUE	21,375,891.22	20,589,523.38	786,367.84	3.82%
DIRECT COSTS				
Direct Labor	5,444,983.65	5,065,926.11	379,057.54	7.48%
Board of Directors	7,092.91	3,738.46	3,354.45	89.73%
Capital Outlay >\$5K	1,398,482.00	2,314,606.28	(916,124.28)	100.00%
Contractual Svcs	3,961,881.43	1,920,243.79	2,041,637.64	106.32%
Inventory	165,636.67	183,674.37	(18,037.70)	-9.82%
Supplies	1,351,602.64	835,865.37	515,737.27	61.70%
Travel - Domestic	103,466.10	54,614.78	48,851.32	89.45%
Travel - Foreign	12,773.21	4,226.84	8,546.37	202.19%
Utilities	1,212,647.26	1,364,342.81	(151,695.55)	-11.12%
Other Direct Costs	160,365.63	159,282.33	1,083.30	0.68%
Unallow/Unbill Costs	132,907.45	280,546.89	(147,639.44)	-52.63%
TOTAL DIRECT COSTS	13,951,838.95	12,187,068.03	1,764,770.92	14.48%
INDIRECT COSTS				
Fringe Benefits	5,335,955.50	4,317,787.86	1,018,167.64	23.58%
Overhead	6,419,544.30	6,302,416.05	117,128.25	1.86%
TOTAL INDIRECT COSTS	11,755,499.80	10,620,203.91	1,135,295.89	10.69%
GROSS PROFIT/LOSS ()	(4,331,447.53)	(2,217,748.56)	(2,113,698.97)	517.81%
OTHER INCOME				
Water Treatment	160,139.06	100,304.86	59,834.20	59.65%
Miscellaneous Income	22,615.50	30,517.74	(7,902.24)	-25.89%
Other Operating Income	101,389.49	17,421.21	83,968.28	481.99%
TOTAL OTHER INCOME	284,144.05	148,243.81	135,900.24	91.67%
OTHER EXPENSES				
Misc. Expenses & Donations	(3,182,895.17)	(292,628.64)	(2,890,266.53)	987.69%
Loss (Gain) on Sale of FA	15,282.62	(2,512,076.27)	2,527,358.89	-100.61%
Other Unallowable Expense	344,790.64	226,517.69	118,272.95	52.21%
Reclass Incr Net Assets	216,724.98	(1,327,576.57)	1,544,301.55	-116.32%
TOTAL OTHER EXPENSES	(2,606,096.93)	(3,905,763.79)	1,299,666.86	-33.28%
NET INCOME/LOSS ()	\$ (1,441,206.55)	\$ 1,836,259.04	\$ (3,277,465.59)	-178.49%

South Dakota Science & Technology Authority
Available Resources
1/31/2024

Cash Total Checking	\$	2,408,904
Cash With State Treasurer	\$	<u>23,056,375</u>
Total Cash	\$	25,465,279
Less: Restricted Funds		
Indemnification/Mine Closure	\$	(9,067,505)
SB35 Appropriation	\$	(11,775,512)
Experiments (Xenon, Interest, Infrastructure)	\$	<u>(570,119)</u>
Total Cash Available for Infrastructure Upgrades and Authority Operations	\$	4,052,142
Plus: Accounts Receivable Billed	\$	2,208,454
Transfer request from the SB35 Appropriation	\$	411,507
Accounts Receivable Unbilled	\$	77,062
Less: Current Liabilities (Accounts Payable & Accrued Payroll)	\$	(3,676,611)
Available Cash and Receivables	\$	<u><u>3,072,555</u></u>

SDSTA Operating Budget Summary FY2024

Actual vs Budget
January 2024 & YTD

	January 2024				Actual vs Budget				
	January 2024	Budget	\$ Over/Under Budget	% of Budget	Actual YTD	YTD Budget	\$ Over/Under Budget	% of Budget	% Remaining
SDSTA (Authority) Direct Charges									100%
Board of Directors	\$616	\$1,500	\$884	41.08%	\$7,372	\$10,500	\$3,128	70.21%	29.79%
Executive Office	\$102,708	\$118,507	\$15,799	86.67%	\$703,748	\$774,570	\$70,822	90.86%	9.14%
Science Center E & O	\$586	\$300	(\$286)	195.32%	\$97,077	\$81,700	(\$15,377)	118.82%	-18.82%
SURF Foundation	\$11,995	\$25,381	\$13,386	47.26%	\$126,434	\$186,181	\$59,747	67.91%	32.09%
Science Liaison	-\$2,742	\$0	\$2,742	100.0%	-\$2,353	\$0	\$2,353	NA	NA
SLHVC (Visitor Center)	\$41,848	\$50,677	\$8,829	82.58%	\$307,383	\$377,420	\$70,037	81.44%	18.56%
Subtotal	\$155,011	\$196,364	\$41,353	78.94%	\$1,239,660	\$1,430,371	\$190,711	86.67%	13.33%
Federal/State Funding - Direct Charges									
Fermi C#671265 Prof. St.Services	\$10,772	\$10,910	\$138	98.73%	\$65,215	\$76,370	\$11,155	85.39%	14.61%
Fermi C#674969 Ross Logist.Supp.	\$231,035	\$282,106	\$51,071	81.9%	\$2,515,906	\$2,794,491	\$278,585	90.03%	9.97%
Office of Science Coop.Agree	\$1,401,372	\$1,590,688	\$189,316	88.1%	\$9,357,053	\$10,115,067	\$758,014	92.51%	7.49%
Office of Science IIP Projects	\$113,737	\$113,737	\$0	100.0%	\$2,488,387	\$2,488,387	\$0	0.00%	0.00%
LBNL LZExp.Operat.C#7650068 & DE-SC0022857	\$35,418	\$51,343	\$15,925	68.98%	\$404,390	\$359,401	(\$44,989)	112.52%	-12.52%
Battelle Mem. Inst - DEMO-FTES	\$0	\$0	\$0	0.0%	\$173	\$173	\$0	100.00%	0.00%
MJD (Majorana) ORNL144149 & SDSM&T CT001412 & CT005350	\$2,532	\$2,035	(\$497)	124.43%	\$15,432	\$14,245	(\$1,187)	108.33%	-8.33%
BHSU E & O - CT004853 & CT004854	\$1,303	\$1,303	\$0	100.0%	\$2,980	\$2,980	\$0	99.99%	0.01%
* Kiewit/Thyssen/DakotaT.	\$1,525	\$1,525	\$0	100.0%	\$10,675	\$10,675	\$0	100.00%	0.00%
* Caterpillar Inc.	\$0	\$0	\$0	0.0%	\$0	\$0	\$0	0.00%	100.00%
RESPEC Thermal Breakout	\$0	\$83	\$83	0.0%	\$0	\$582	\$582	0.00%	100.00%
Subtotal	\$1,797,694	\$2,053,731	\$256,036	87.53%	\$14,860,210	\$15,862,371	\$1,002,161	93.68%	6.32%
Indirect Expenses									
Indirect Charges Personnel	\$440,388	\$648,293	\$207,905	67.93%	\$3,143,367	\$4,196,348	\$1,052,982	74.91%	25.09%
Indirect Charges Other	\$522,996	\$559,923	\$36,927	93.4%	\$3,755,038	\$3,989,742	\$234,704	94.12%	5.88%
Subtotal	\$963,383	\$1,208,216	\$244,833	79.74%	\$6,898,405	\$8,186,090	\$1,287,685	84.27%	15.73%
Totals	\$2,916,089	\$3,458,311	\$542,222	84.32%	\$22,998,275.54	\$25,478,832.43	\$2,480,557	90.26%	9.74%
* Private Corporations (Commercial Group)									

Communications Department Photo Appendix C



Top: Members of the Emergency Response Team practice rope rescue techniques.

Center left: Project Manager Pam Hamilton points at the old Ellison Hoistroom scheduled for demolition.

Center right: Patrons at the Sanford Lab Homestake Visitor Center visit with scientists at an Ask A Scientist event.

Bottom: SDSTA Executive Director Mike Headley presents the 2023 CORES award to the SD Mines Geology Museum.



Communications Department Photo Appendix C



Top: A mucker on the left and jumbo drill on the right as seen from directly above in the north DUNE Cavern.

Center: A jumbo drill used in the excavation of the DUNE Caverns.

Right: The north DUNE Cavern looking east toward the opposite opening. Note the equipment at the far end and a person at left front of the photo for scale.

Select Nominating Committee—Chairperson Casey Peterson

Chairperson to appoint members of nominating committee for election of officers at the June annual meeting.

Recommended Action:

None.

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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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Approve Risk Transfer Protocols—Mr. Tim Engel

Approve updated Risk Transfer Protocols Manual. (*see recommended motion below*)

Recommended Action:

Motion to approve the updated Risk Transfer Protocols Manual.

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I. GENERAL

A. Purpose – Interpretation

These Risk Management Protocols ("Protocols") are intended to:

1. Establish a systematic contractual risk transfer procedure for the South Dakota Science and Technology Authority ("SDSTA");
2. Establish a written risk management plan that includes, among other things: (a) general categories of activities and associated risks organized by level of risk; (b) types of coverage and limits of liability to be required for each category; (c) criterion used to determine whether the Homestake Indemnified Parties must be named as additional insureds on commercial insurance policies required of Contractors and Project Participants; and (d) criterion used to determine whether a retained risk plan, pool, or other form of "self-insurance" is acceptable in combination with or in lieu of commercial insurance; and
3. Ensure all Contractors and Project Participants provide insurance in compliance with the terms of the PDA and to shift risk away from the Homestake Indemnified Parties, SDSTA, and the State of South Dakota in compliance with the terms and intent of the PDA and the donation of the former Homestake Gold Mine to SDSTA.

B. Scope

These Protocols are applicable to all Contractors and Project Participants and its or their Representatives.

C. Protocol Structure

SDSTA's risk transfer program consists of two components: standard contractual provisions and insurance requirements. The standard contractual provisions are described below in Section II. The insurance requirements are described below in Section III.

D. Definitions

1. "Authorized Entrant" has the meaning given to that term in the PDA. The term does not include FRA or its Representatives or FRA's Contractors.

2. "Contractor" means a natural person or Entity that undertakes a contract to provide materials or labor to perform a service or do a job at SURF, including but not limited to excavation, construction, outfitting, and equipment installation, whether on the Surface Property or in the Underground Property, and including, without limitation, natural persons and entities contracting with SDSTA, a Project Participant, or any other natural person or entity. Without limitation, the term includes any contractor or contractor Representative that uses a hand tool or other tool as a part of their job or work. The term includes subcontractors at any level and consultants and sub-consultants at any level.
3. "DOE" means the United States Department of Energy.
4. "Entity" means a partnership, corporation, limited liability company, or unincorporated association; a collaboration; a public or private educational institution; a public or private laboratory; a federal, state local, or other governmental entity, or any agency or instrumentality thereof; a body corporate and politic; and any other or similar organization. Without limitation, the term includes collaborations made up solely of non-US natural persons and/or Entities or a combination of US and non-US natural persons and/or Entities.
5. "FRA" means Fermi Research Alliance, LLC, operator of the Fermi National Accelerator Laboratory.
6. "Homestake Indemnified Parties" has the meaning given to that term in the PDA.
7. "PDA" means the Property Donation Agreement between and among Homestake Mining Company of California, the State of South Dakota, and SDSTA, which is dated April 14, 2006, as amended.
8. "Project Participant" means a natural person or Entity that undertakes, or participates in the undertaking of, an experiment, investigation, examination, or other, similar scientific or engineering activity at SURF, including without limitation the excavation or construction of laboratory space or infrastructure associated with or necessary for the experiment, investigation, examination, or other, similar scientific or engineering activity. The term "Project Participant" does not include a Contractor engaged by a natural person or Entity solely for the purpose of the excavation or construction of laboratory space or infrastructure associated with or necessary for the experiment, investigation, examination, or other, similar scientific or engineering activity. The term "Project Participant" includes, without limitation, a public or private educational institution or a laboratory which is a member of a collaboration or which employs a natural person who

is a member of a collaboration. The term does not include DOE or any other funding agency. The term does not include a natural person who is an employee of a Project Participant that undertakes an experiment, investigation, examination, or other, similar scientific or engineering activity at SURF.

9. "Representative" means any natural person or Entity, including elected officials, officers, directors, employees, agents, consultants, lessees, licensees, and invitees, that any Contractor, Project Participant, or other natural person or Entity invites onto, or allows or authorizes to conduct any activities at SURF. Without limiting the generality of the foregoing, the term includes natural person or Entity members of collaborations and natural persons representing collaborations.
10. "Risk Manager" means a qualified person employed by the Authority for the purpose of managing the risk of the Authority and interpreting and carrying out the terms of these Protocols.
11. "Risk Management Consultant" means a qualified consultant, not an employee of SDSTA, engaged for the purpose of assisting the Risk Management Consultant and carrying out the other tasks assigned to the Risk Management Consultant by these Protocols.
12. "SURF", means the Sanford Underground Research Facility, owned and controlled by SDSTA, and located in and near Lead, South Dakota, including both the Surface Property and the Underground Property, and any other SDSTA-owned or -controlled property.
13. "Surface Property" means the surface estate at SURF as described in Part 1 of Exhibit A to the PDA.
14. "Underground Property" means the subsurface estate and mineral estate at SURF as described in Part 2 of Exhibit A to the PDA, which includes all rights owned by SDSTA in the subsurface estate and mineral estate underlying the Surface Property.

E. The Risk Manager

SDSTA shall at all times employ a qualified internal Risk Manager and as necessary and/or required by these Protocols, a Risk Management Consultant.

F. Responsibilities

1. The Executive Director will ensure that all requirements of the PDA are met. The Executive Director will ensure compliance by allocating resources and delegating responsibility concerning contract review and insurance compliance to the Risk Manager.
2. The Risk Manager will be responsible for categorizing all Contractors and Project Participants and its or their Representatives by appropriate level of risk.
3. The Risk Manager is responsible for the development of a risk management program that includes decision making tools, standardized categorization parameters to be used to determine types of coverage, limits of liability, and whether a retained risk plan, pool, or other form of "self-insurance" is acceptable.
4. The Risk Manager ensures the proper risk management contract language in compliance with these Protocols is applied and inserted within each contract on a case-by-case basis.
5. The Risk Management Consultant will upon request review the Risk Manager's determinations concerning types and amounts of coverage required of "Other Risk" Contractors and Project Participants and will periodically review the Risk Manager's determinations concerning the level of risk assigned to particular Contractors and Project Participants. The Risk Management Consultant will be identified and retained by the Executive Director, in consultation with SDSTA's general counsel.
6. The Risk Manager shall have the separate and independent duty and ability to report directly to the SDSTA Board of Directors and to general counsel for SDSTA.

G. Document Retention

1. SDSTA shall retain copies of all Contracts to which SDSTA is a party, Memoranda of Understanding, or other Agreements with Contractors and Project Participants, insurance certificates, and policies for a minimum of ten (10) years after final completion or final decommissioning.
2. Anything in this document to the contrary notwithstanding, SDSTA shall at all times comply with the document retention provisions of PDA section 6.10 (c).

H. Inclusion in Contracts and Memoranda of Understanding

In all projects (whether conducted by SDSTA or a Project Participant) involving competitive bids, requests for proposals, or any other form of solicitation, the insurance and other requirements set out in this document will be provided to each interested Contractor prior to bid submission. Prior to final execution of a contract with any Contractor or a Memorandum of Understanding or other agreement with a Project Participant, regardless of whether a competitive bid, request for proposal, or other form of solicitation was utilized in connection therewith, the Risk Manager will verify the contract or memorandum contains the appropriate indemnification and insurance requirement language to ensure the requirements of this document have been met. SDSTA acknowledges that the Site Access Agreement (Version 1) used by the management and operating contractor for Fermi National Accelerator Laboratory for DUNE collaborators complies with these Risk Transfer Protocols.

I. Changes to Protocols

1. The Risk Manager makes minor changes for work flow and integration.
2. The Risk Manager delegates responsibilities for formatting, version numbers, document control, and grammatical changes.
3. The Risk Manager notifies the Executive Director of the need for major conceptual changes.
4. Major changes, such as changes to limits of coverage, require the review and approval of SDSTA's general counsel, DOE, and the Board of Directors, and must thereafter be submitted to Homestake. Major changes do not take effect until the later of approval by DOE or submission to Homestake. No changes shall have retroactive application.

II. REQUIRED CONTRACTUAL PROVISIONS

A. Required Clauses

Except as otherwise provided below, a standard indemnification clause will be included in all contracts, Memoranda of Understanding, or other agreements between SDSTA and Contractors, and between Project Participants and their Contractors of any tier. A provision requiring natural persons entering the Underground Property to execute an Acknowledgement of Risk and the Release and Agreement Not to Sue and Waiver will be included in all contracts, Memoranda of Understanding, or other agreements between SDSTA and Contractors or Project Participants,

between Project Participants and their Contractors, and between general Contractors and their subcontractors and consultants of any tier when the Underground Property is entered or the work or activities directly relate to the Underground Property.

1. **Indemnification.** This provision requires a Contractor to assume liability for, defend, and indemnify the Homestake Indemnified Parties, SDSTA and the State of South Dakota, and SDSTA's and the State of South Dakota's elected officials, appointed officials, employees and agents from and against losses arising from the Contractor's negligence or intentional acts and the negligence or intentional acts of the Contractor's officers, directors, employees, agents, subcontractors of any tier, or consultants. This requirement does not apply to Contractors of Authorized Entrants or to Contractors in the "Low Risk" category. The standard form of indemnification clause is shown in Appendix B.
2. **Acknowledgment of Risk.** Under this provision, Contractors and Project Participants and their Representatives are advised that all natural persons who enter the Underground Property are required to declare that they have investigated and been advised on the risks associated with going underground. The required form of Acknowledgment of Risk is shown in Appendix C. This requirement does not apply to Authorized Entrants.
3. **Release, Agreement Not to Sue and Waiver (the "Release").** Under this provision, Contractors and Project Participants and their Representatives are advised that all natural persons who enter or conduct work or activities directly related to the Underground Property must agree to release, discharge, and not sue the Homestake Indemnified Parties, SDSTA, the State of South Dakota, and SDSTA's and the State of South Dakota's elected officials, appointed officials, employees, and agents from and for any claims, actions, or proceedings of any kind related to or arising out of damage to their health, bodily injury, death and/or damage to their property in any way associated with entry, presence in, or activities upon, in, or around SURF. The required form of Release, Agreement Not to Sue and Waiver is shown in Appendix D. This Requirements does not apply to Authorized Entrants.

B. Natural Persons Entering the Underground Property

Anything elsewhere in these Protocols to the contrary notwithstanding, except for Authorized Entrants, all natural persons entering the Underground Property for any reason or under any authority must execute the Acknowledgement of Risk and the Release, Agreement Not to Sue and Waiver prior to entering the Underground Property. Except for Authorized Entrants, this requirement applies to all elected officials, officers, agents, and employees of SDSTA, the State of South Dakota, the United States, and all other governmental entities.

C. Waivers

The requirement for execution of the standard indemnification clause may be waived by SDSTA's Executive Director, in consultation with SDSTA's legal counsel. Execution of the Acknowledgment of Risk and of the Release, Agreement Not to Sue and Waiver are required by the PDA and may only be waived by the Executive Director, in consultation with SDSTA's legal counsel and with Homestake's written consent. The PDA requires Homestake's approval of the forms of the Acknowledgment of Risk and the Release and Agreement Not to Sue and Waiver. Accordingly, no changes may be made to those forms without Homestake's written consent.

III. INSURANCE REQUIREMENTS

A. Overview

These guidelines establish four (4) broad categories of Contractors and Project Participants, based on the nature and extent of their activities on SDSTA property. The categories are "Negligible Risk," "Low Risk," "Intermediate Risk" and "Other Risk." The following subsections set out the criteria for classifying Contractors and Project Participants and the insurance requirements for each, as well as establishing criteria for requiring certain supplemental forms of coverage and determining when the Homestake Indemnified Parties must be included as additional insureds. The insurance requirements of this document apply not only to Contractors contracting with SDSTA, but also Contractors contracting with Project Participants for work at SURF.

B. Determination of Categories and Required Coverages – Ratings for Commercial Insurers.

The Risk Manager shall assign categories of risk and determine types and levels of coverage based upon the following criteria.

The Risk Manager, after evaluating the risks presented by the proposed Project Participant activity or Contract, may decrease the limits otherwise required by these Protocols and may waive coverages otherwise required if the Risk Manager determines reduced limits and/or a waiver of certain coverages will adequately address the risks presented.

Commercial insurance coverage must be provided by an insurer with an A.M. Best rating of A, VII or greater.

C. Categories of Risk

1. Category One ("Negligible Risk"). Contractors and Project Participants whose activities are conducted on the Surface Property only and present a negligible risk of property damage and bodily injury. Examples of these types of activities include:
 - a) Onsite classroom training;
 - b) Mail or small parcel delivery (e.g., FedEx or UPS);
 - c) Meal delivery;
 - d) Office equipment repair and maintenance; and
 - e) Project Participant who arrives to select location to collect a sample.
2. Category Two ("Low Risk"). Contractors and Project Participants that:
 - a). Will be conducting construction activities on the Surface Property only, and will not be using heavy construction equipment except in connection with a contract of \$50,000.00 or less; or
 - b). Will have fewer than ten (10) employees or natural persons who are Representatives of a Project Participant present at SURF (Surface Property or Underground Property) at any one time; and
 - c). Will not be using or storing explosives, suffocative, caustic or otherwise dangerous materials.

Examples of "low risk" Contractors or Project Participants are:

- I. Contractor working on water treatment plant modifications;
- II. Project Participant that has graduate students assisting in biological surveys in the Underground Property; and
- III. Consultants not participating in design or quality control inspection.

3. Category Three ("Intermediate Risk"). All Contractors and Project Participants doing work or with a presence on the Surface Property not included in categories One, Two, or Four, and all Contractors and Project Participants doing work in or with a presence in the Underground Property not included in category Two or category Four. Examples of Contractor or Project Participant activities that may be appropriate for this category include the following:
- a) Structural work on the Surface Property, including the use of heavy construction equipment in connection with a contract of more than \$50,000.00, excavation, or blasting.
 - b) Infrastructure work on the Surface Property.
 - c) Transportation on the Surface Property.
 - d) Presence at SURF (Surface Property or Underground Property) at any one time of 10 - 19 Contractor employees or of 10-19 natural persons who are Representatives of a Project Participant.
 - e) Work in buildings occupied by 20 - 49 persons or adjoining a building occupied by 20 - 49 persons.
 - f) Use of storage of suffocative or other hazardous materials on the Surface Property.
4. Category Four ("Other Risk"). Contractors and Project Participants doing work or with a presence on the Surface Property or in the Underground Property meeting one or more of the following criteria:
- a) Contractors or Project Participants conducting particularly hazardous activities, such as excavation, blasting, or the presence, use, or handling of suffocative, caustic, or other hazardous materials in the Underground Property.
 - b) Use of heavy equipment in the Underground Property.
 - c) Underground Property infrastructure work.
 - d) Underground Property transportation or movement of equipment or personnel, including hoists and winches.

- e) Work in buildings occupied by fifty or more people, or adjoining a building occupied by fifty or more people.
- f) The presence onsite at SURF (Surface Property and/or Underground Property) of twenty or more employees of a Contractor or its subcontractors and consultants, or of twenty or more natural person Representatives of a Project Participant.
- g) Contracts or Projects with a value of \$5 million or more.
- h) Installation or manipulation of high-voltage infrastructure and related equipment.

D. Standard Insurance Requirements

- 1. See Appendix E for detailed standard insurance requirements for each category of risk.

E. Ancillary Coverages – Workers Compensation Coverage

- 1. Illustration 1 describes when supplemental insurance coverages should be required; in many cases more than one type of insurance may be required. To use Illustration 1, identify the activity(ies) to be performed by the Contractor or Project Participant in the first column of the table. Then note the insurance coverage necessary to protect against losses that may arise from that activity. Finally, proceed to Section III.E.2 below to determine whether to modify the standard insurance requirements.

Illustration 1
Ancillary Coverage Requirements by Contract Activity Involved

Contract Activity Involved	Professional Liability	Contractor's Pollution Liability	Builders Risk	Aviation/Drone Liability	Cargo Insurance	Installation Floater	Automobile Liability
Construction or Remodeling Projects - Construction or remodeling projects over \$50,000		X (including contracts for grading or paving)	X (excluding contracts for grading or paving)				

Risk Transfer Protocols for SDSTA's
Contractors and Project Participants

<p>Hazardous or Waste Materials - Removal of asbestos or lead-based paint; or the use, application, transport, removal, cleanup, or disposal of hazardous material in quantities of 100 gallons or more; or the disposal, treatment, transport, or storage of waste.</p>		<p>X</p>					
<p>Installation of Equipment</p>		<p>X (when the installation or testing of the equipment involves the use of involves the use of asphyxiants (including otherwise benign gases or vapors which displace</p>				<p>X</p>	

Risk Transfer Protocols for SDSTA's
Contractors and Project Participants

		breathable air) or hazardous or other materials excluded from coverage under a commercial general liability policy)					
Professional Services - Services from an accountant, architect, attorney, claims administration firm, consultant (including design consultants), engineer, financial advisor, medical professional, or other person who maintains a professional license.	X						
Supply - FOB Destinations - Supplying of all goods and equipment					X (as appropriate)	X	

Risk Transfer Protocols for SDSTA's
Contractors and Project Participants

where contractor is responsible for the goods/equipment to the point of delivery (FOB destination).						(as appropriate)	
Use of Aircraft /Helicopters			X				
Use of automobiles, but excluding natural persons operating personal leased, hired, or owned automobiles							X
Use of drones			X				

2. Based upon Illustration 1 above, the following supplemental coverages shall be required.

a. Aviation/Drone Liability Insurance

i. Aviation liability insurance coverage shall provide limits of not less than \$5,000,000 per occurrence for airplanes/helicopters with seven (7) seats or less; \$10,000,000.00 per occurrence for aircraft/helicopters with eight (8) to twelve (12) seats; and \$25,000,000.00 for aircraft/helicopters of greater than twelve (12) seats, for aircraft/helicopters utilized for material or equipment delivery to SURF, and for aircraft/helicopters utilized for firefighter or material application (such as dust control). Coverage for material application shall include coverage for overspray and chemical drift.

ii. Drone liability coverage shall provide limits of not less than \$1,000,000.00 per occurrence and \$1,000,000.00 aggregate.

ii-iii. The policy shall be endorsed to include SDSTA and its directors, officers, employees, and agents as additional insureds, and a waiver of subrogation in favor of SDSTA and its directors, officers, employees, and agents.

b. Builders Risk Insurance

i. All Risk Builders Risk insurance shall include Special Form coverage or its equivalent, at replacement cost for materials, supplies, equipment, machinery and fixtures that are, or will become, part of SDSTA-owned property, and shall include the cost of labor to repair or replace the damaged or destroyed materials, equipment, machinery, and fixtures. Such insurance shall:

(a) Remain in effect until completion of the work and acceptance by SDSTA; and

(b) Include coverage for earthquake, flood, ordinance or law, temporary offsite storage, debris removal, pollutant cleanup and removal, preservation of property, excavation costs, landscaping, shrubs and plants, and full collapse coverage during construction.

c. Cargo Insurance

i. Cargo insurance coverage shall cover the value of the goods or equipment to be delivered until the goods or equipment is accepted by the owner.

d. Installation Floater

i. Installation floater coverage shall cover the value of the equipment to be installed. Such insurance shall include:

(a) The owner as insured; and

(b) Coverage for testing, water damage, mechanical breakdown, and electrical injury.

e. Pollution Liability Insurance

i. Contractor's pollution liability or substantially similar commercial insurance coverage shall provide a limit for bodily injury, property damage, cleanup, and

defense costs with limits not less than \$10,000,000.00 per claim and \$10,000,000.00 annual aggregate. The Risk Manager will consider the coverage afforded by other policies, including exclusions in other forms of coverage, when determining whether to require pollution liability insurance coverage for equipment installation. The Risk Manager may require lower limits of liability for work which the Risk Manager concludes will result in risks not requiring these higher limits. The requirements of this subsection may be met by way of an appropriate project-specific commercial pollution liability policy.

- ii. The policy shall be endorsed to include SDSTA and its directors, officers, employees, and agents; the State of South Dakota and its elected officials, appointed officials, employees, and agents; the Homestake Indemnified Parties; the United States Department of Energy; and any other parties as required by the applicable contract as additional named insureds.

f. Professional Liability Insurance

Professional liability insurance coverage shall provide limits not less than \$1,000,000 per claim and \$2,000,000 annual aggregate or as otherwise provided in Appendix E. Limits of \$5,000,000.00 per claim and \$10,000,000.00 aggregate shall apply to contracts involving design work for excavation and other work involving a risk of subsidence or collapse in the Underground Property. The aggregate limit of liability shall apply separately to SDSTA. Professional liability insurance shall not be required of Project Participants who are self-performing the design of equipment associated with an experiment located at SURF or the employees of such Project Participants.

g. Automobile coverage

Proof of automobile liability coverage is not required of natural persons operating their personal hired, leased, or owned automobiles. However, all natural persons and entities, including Contractors, Project Participants, their officers, directors, agents, employees, and representatives are reminded South Dakota law requires persons operating motor vehicles in South Dakota to establish proof of financial responsibility, including through automobile liability insurance. See SDCL Ch. 32-35.

3. a. Contractors and US-based Project Participants must prior to the affected person coming onsite at SURF provide SDSTA with evidence of workers compensation coverage

complying with the requirements of SDCL 62-5-1 through 62-5-5. Contractors and US-based Project Participants may not elect to operate outside SDCL Title 62. (See SDCL 62-5-7). In lieu of the foregoing, a Contractor or US-based Project Participant may provide evidence of compliance with the same or similar requirements of another state or territory of the United States and evidence of coverage for employees working at SURF.

b. Project Participants who are not US-based but whose home countries require or provide for workers compensation coverage which by law may provide coverage for employees working at SURF must provide evidence to SDSTA of such coverage before working on site at SURF

c. Project Participants who are not US-based and whose home countries do not require or provide for workers compensation coverage which by law could apply to employees working at SURF must prior to coming onsite at SURF provide SDSTA evidence of medical insurance coverage.

F. Insurance Requirements for Contracts with Certain Funding Agencies – Large “Other Risk” Projects

1. The insurance requirements for contracts, including grant agreements, entered into between SDSTA and the United States government and its contractors and subcontractors to provide funding for the general operations and maintenance of SURF shall be negotiated by the Executive Director, in consultation with the Chairperson of the Board, SDSTA's legal counsel, and the Risk Management Consultant, taking into account the insurance requirement provisions of the PDA and these Protocols, the risk to SDSTA and the State of South Dakota, and the overall best interests of the overall mission of SDSTA.
2. For “Other Risk” projects with 50 or more persons underground at any one time or with a project cost of \$50,000,000.00 or more the Contractor or Project Participant, as applicable, must provide an owner-controlled insurance program or other, similar “wrap up” insurance program with broad form liability coverage with limits of liability of not less than \$25,000,000.00 per occurrence and \$25,000,000.00 aggregate; without limiting the generality of the foregoing, the program may not include an exclusion for underground subsidence or underground water impoundment. The program need not include coverage for damage to DOE-owned property. Workers compensation coverage may be provided through the program or as provided in Article III, Subsection E.4 of these protocols.

The requirement for a "wrap-up" insurance program may be waived if the Project Participant can demonstrate such coverage is not available in the commercial insurance market or is not available at a cost comparable to similar insurance for another commercial or civil project with a similar risk profile; in the event of such a waiver, the "Other Risk" insurance requirements of these Protocols shall remain in effect. In addition to such owner-controlled or other "wrap up" insurance program, SDSTA shall control the purchase of its own general liability and pollution coverage as required by the PDA, the cost of which shall be paid by the Project Participant or other external funding source so long as the cost is reasonable.

3. Anything elsewhere in these Protocols to the contrary notwithstanding, property insurance coverage shall not be required for DOE-owned property.

G. SDSTA as a Contractor

1. In a case where SDSTA serves in the capacity of contractor for any service or project, it will provide appropriate additional insured liability insurance coverage for the service or project subject to the exclusions, sub-limits, and other terms of the applicable insurance policy or other coverage document. The Homestake Indemnified Parties shall be named as an insured or additional insured on any such coverage.
2. Such insurance coverage will be provided through SDSTA's captive primary or excess liability tower, or separate commercial policy.

IV. RISK TRANSFER IN LIEU OF OR IN CONJUNCTION WITH COMMERCIAL INSURANCE

A. Overview

There may be instances where Contractors or Project Participants cannot or will not provide commercial insurance with the coverages and limits of coverage described above. The following sections describe when SDSTA will waive or modify insurance requirements or accept "self-insurance."

B. Waiver of Insurance Requirements.

1. There may be situations where it is necessary or appropriate to modify (but not make more restrictive than provided herein) or waive certain insurance requirements. These include situations where:

- a) There is negligible risk of loss from a particular activity. For example, where the Contractor will not be operating a vehicle in performance of the work, the business automobile insurance requirement will be waived;
- b) Requiring insurance is inconsistent with industry practice. For example, certain service providers may be unwilling to agree to standard insurance requirements, and it may not be able to procure the service from another provider willing to procure the otherwise required insurance coverage. In these situations, SDSTA will do its best to negotiate the most favorable terms possible to adequately protect SDSTA; and
- c) The Contractor provides a highly-specialized service such that:
 - (1) The Contractor has substantial leverage in the negotiation process; and
 - (2) SDSTA has no reasonable alternative markets for the services required.

2. In these circumstances and where otherwise appropriate, SDSTA in consultation with the Risk Management Consultant (except with respect to the Negligible Risk and Low Risk categories, in which case no consultation is required), will negotiate the most favorable terms possible and will seek alternative means of transferring and mitigating risk, such as bonding, letters of credit, cash deposits, additional training, additional supervision by SDSTA personnel and/or the provision of qualified SDSTA personnel to accompany the Contractor or Project Participants or their Representatives as necessary and appropriate.

3. The Risk Manager, in consultation with the Risk Management Consultant, will consider requests from Contractors and Project Participants to reduce the limits of liability or types of coverage required based on the cost of such insurance to the Contractor or Project Participant if reasonably necessary to enable the Contractor or Project Participant to compete for or participate in work at SURF. Such consideration shall include an evaluation of the risks associated with the specific work to be undertaken and of the consequences to other Contractors, Project Participants, SDSTA, the Homestake Indemnified Parties or others of an uninsured or underinsured loss.

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C. Acceptance of Extraordinary Retentions

In some circumstances, SDSTA, after consultation with the Risk Management Consultant, will accept extraordinary retentions in lieu of traditional commercial insurance. For the purposes of these protocols, the term "extraordinary retention" means retention or deductibles of \$100,000.00. When evaluating proposals to transfer risk in that fashion, the Risk Manager, in

consultation with the Risk Management Consultant, shall consider whether the Contractor is publicly-traded or the financial strength of Contractors which are not publicly-traded. The Risk Manager may require proof the Contractor has sufficient means to pay claims within the proposed retention amount, including a certification or letter to that effect from a CPA or other consultant

D. Acceptance of Contractor or Project Participant "Self-Insurance"

Some Contractors or Project Participants may offer coverage through a captive insurance company, "self-insurance," or some combination of the foregoing, sometimes coupled with reinsurance or excess insurance. When evaluating the acceptability of such offers, the Risk Manager, in consultation with the Risk Management Consultant, shall consider the following:

1. The ability of the offered coverage to provide scope and amounts of coverage reasonably equivalent to those available with a commercial insurance product.
2. Evidence that the alternative arrangement has sufficient financial security to pay claims as presented. A letter from a CPA or actuary may be required providing the CPA's or actuary's conclusion, after utilizing appropriate accounting or actuarial guidelines, that the offered coverage vehicle has sufficient means to provide the required limits.
3. Evidence that the alternative arrangement has an adequate claims management system in place to provide proper handling of claims should they arise.

E. Insurance or Self-Insurance Purchased or Provided by Project Participant Collaborations

In many instances, there will not be a single Project Participant. Rather, a Project may be sponsored by a collaboration of various public and/or private laboratories or institutions of higher learning. In those circumstances, it is the responsibility of the collaboration, through its Project Participants, to provide commercial insurance, "self-insurance," or some combination of the foregoing sufficient to satisfy the requirements of these Protocols. Except for Projects in the "Other Risk" category with more than 50 persons underground at any one time and with a cost of \$50,000,000 or more, the Risk Manager, in consultation with the Risk Management Consultant, may accept evidence of commercial insurance, self-insurance, of some combination of the foregoing that, taken together, result in limits of liability consistent with those required by these Protocols. Any coverage purchased or otherwise provided by SDSTA for Project Participants is in addition to, and not a substitute for, the coverage required of Project Participants by these Protocols.

V. EVIDENCE OF CONTRACTOR OR PROJECT PARTICIPANT COMPLIANCE

A. Certificates of Insurance or Similar Evidence of Coverage

Each Contractor and Project Participant is required to provide SDSTA with evidence of compliance with SDSTA's insurance requirements prior to commencement of work. The evidence of compliance will consist of a certificate of insurance or similar document issued by the Contractor's insurer or broker, or a similar document issued by a risk pool or "self-insurance" fund. Unless similar assurances of limits, nature and extent of coverage, and exclusions may be obtained from another authoritative source, to the fullest extent possible without violating confidentiality obligations, copies of policies and/or other coverage documents shall be provided upon request.

B. Review

The insurance demonstrated on the evidence of coverage document (which may include a certificate of insurance) will be compared to the contract requirements by the Risk Manager or the Risk Manager's designee. To assist SDSTA personnel reviewing the proof of coverage, the completed contract review checklist may be used in lieu of the actual contract. The Risk Manager or designee will review the evidence of insurance to verify:

1. The Contractor or Project Participant maintains the type of coverage and limits required in the contract, memorandum of understanding, or similar document;
2. The Contractor's or Project Participant's insurers maintain financial ratings acceptable to SDSTA and the Risk Management Consultant;
3. The Contractor's or Project Participant's policies are current;
4. The required "additional insured" language is included with respect to the Contractor's general liability policy (and pollution liability policy where applicable);
5. The appropriate cancellation notice language is included; and
6. Other insurance requirement provisions are compiled with, and the evidence of coverage otherwise contains complete and accurate information.

C. Samples

Sample certificates of insurance are provided in the following appendices.

1. Appendix F – Evidence of insurance required by contracts under Category 2.
2. Appendix G – Evidence of insurance required by contracts under Category 3.

Appendix J includes a certificate of insurance review checklist. SDSTA may use the checklist to assist in and document the review of the evidence of coverage provided. The checklist items are ordered as they would ordinarily appear on a typical certificate of insurance.

D. Examples of Unsatisfactory Evidence of Compliance

When reviewing certificates of insurance there may be omissions, inaccuracies, or other instances where the evidence of coverage does not appear to provide reliable evidence of compliance with SDSTA requirements. Common examples of those deficiencies and how SDSTA responds to them are listed below.

1. The Contractor or Project Participant is not the insured. This may be an error on the part of the issuer. For example, it is possible the parent company of the Contractor is named. If so, SDSTA asks for evidence of coverage that identifies both the parent and its subsidiary as the insured.
2. The insurer is not rated by A.M. Best or maintains an A.M. Best rating below A-, VII.
3. The actual name(s) of the insurer(s) may be missing or inaccurately displayed on the evidence of coverage. The name must be re-confirmed with the agent/broker. If the evidence of coverage does not accurately reflect the name(s) of the coverage provider, the Risk Manager shall be notified and the evidence rejected.
4. Contractor or Project Participant evidences of coverage have effective dates later than the contract or memorandum of understanding effective date. The Contractor or Project Participant must provide documentation evidencing coverage effective prior to or coincidental with the contract's effective date or the project's initiation date.

5. Contractor or Project Participant coverages expire prior to contract expiration or project completion SDSTA will schedule follow-up contact with the Contractor, Project Participant, or its or their broker or other representative at the time the evidence of coverage is scheduled to be renewed. The date scheduled for follow-up will be no less than two (2) weeks prior to expiration of the coverage. SDSTA will request that updated proof be issued evidencing coverage with a coverage period of an additional twelve (12) months. The failure to maintain continuous coverage will result in a stop work order from SDSTA.
6. The evidence provided does not match SDSTA requirements. The Contractor or Project Participant must supply evidence of the coverage required. Some Contractors or Project Participants may have more than one coverage provider. If the evidence of coverage being reviewed does not include all required coverages, it is possible the Contractor or Project Participant needs to request the other coverage providers to issue documentation evidencing the missing insurance.
7. Coverage limits do not match SDSTA requirements. Be sure excess liability limits are considered. These limits are often listed separately on the evidence of coverage, and are not included in the commercial general liability coverage limits. If necessary, the Contractor or Project Participant must submit revised evidence of coverage evidencing the required limits.
8. The evidence of coverage does not include evidence of the existence of an additional insured endorsement naming the appropriate parties as additional insureds. The evidence provided may fail to identify one or all of the appropriate parties as additional insured. If the Contractor or Project Participant is unwilling to provide evidence of this endorsement with appropriate language, notify the Risk Manager and reject the certificate(s).
9. The evidence of coverage discloses a retention and/or deductible in excess of the amount permitted under these Protocols. SDSTA is relying on the evidence of coverage issuer to report retentions on the evidence documentation.
10. Cancellation notice is less than 10 days for nonpayment and 30 days for other causes or is unspecified. New evidence indicating the proper notice of cancellation of provision will be requested.

11. The evidence is not authenticated in some appropriate fashion. The Contractor or Project Participant must provide authenticated evidence of coverage prior to commencement of work.

DRAFT - 03-06-24

Appendix A

Property Donation Agreement (Excerpts)

1.1(hhh-1) "Risk Manager" means a qualified Person employed by the Authority for the purpose of managing the risk of the Authority.

follows:
(b). Section 6.10 - Covenants in Leases and Agreements – is amended to read as

6.10(a) Prior to authorizing any Person, including any Representative of the State or the Authority, to enter the Underground Property, the Authority shall prepare a written agreement, in a form consistent with best industry practices for the underground mining industry and that is reasonably acceptable to Homestake, that includes, among other things, (i) a declaration that the Person has investigated the risks associated with the Surface Property and the Underground Property, (ii) a declaration that the Person has developed an informed understanding of the risks associated with going underground, and (iii) an agreement that the Person will and does release, discharge and agree not to sue any Homestake Indemnified Party from or as a result of any damage or injury to such Person or its property. The Authority covenants that, as a condition of entering the Underground Property, each Person requesting to enter the Underground Property will be required to execute such written agreement, provided, that an Authorized Entrant will not be required to execute such written agreement.

(b). Prior to authorizing any Contractor or Project Sponsor or its or their Representatives to enter the Underground Property, the Authority shall prepare a written agreement, in a form that is reasonably acceptable to Homestake, that includes, among other things, (i) a declaration that the Contractor or Project Sponsor, as applicable, has investigated the risks associated with the Surface Property and the Underground Property, (ii) a declaration that the Contractor or Project Sponsor, as applicable, has developed an informed understanding of the risks associated with going underground, and (iii) an agreement to be executed by each Contractor in which it agrees that it will and does release, discharge and agree not to sue the Homestake Indemnified Parties with respect to any damage or injury to any Person or property caused by the Contractor or its Representatives and an agreement to be executed by each Project Sponsor in which it agrees that it will and does release, discharge and agree not to sue the Homestake Indemnified Parties with respect to any damage or injury to any Person or property caused by the Project Sponsor or its Representatives. The Authority covenants that, as a condition of permitting any Contractor or its Representatives or any Project Sponsor or

its Representatives to enter the Underground Property, each Contractor or Project Sponsor requesting to enter the Underground Property on its own behalf or on behalf of its Representatives will be required to execute such written agreement.

(c) The Authority shall retain all written agreements executed pursuant to paragraphs (a) and (b) of this Section and shall not destroy them with respect to any Person until seven years after the last occupancy of the Assets by that Person.

(d) The Authority shall employ a Risk Manager on a full-time basis (though the Risk Manager may perform other duties for the Authority). The Risk Manager shall report to the Executive Director, but shall also have the separate and independent duty and ability to report directly to the Board of Directors. The Authority shall, in consultation with a reputable independent risk management consultant, adopt a written risk management plan that includes, among other things, (i) general categories of Contractors and Project Sponsors, organized by level of risk, (ii) the types of coverage and limits of liability to be required for each category, (iii) a requirement that the Homestake Indemnified parties be named as additional insureds on all commercial insurance policies required of Project Sponsors, (iv) the criterion used to determine whether the Homestake Indemnified Parties must be named as additional insureds on commercial insurance policies required of Contractors, and (v) the criterion to be used to determine whether a retained risk plan or pool is acceptable in combination with or in lieu of commercial insurance. The risk management plan shall delegate to the Risk Manager the power to categorize a Contractor or Project Sponsor. As to relatively low levels of risk, the risk management plan shall provide that the Risk Manager's decision concerning types of coverage, limits of liability and whether a retained risk plan or pool is acceptable in combination with or in lieu of commercial insurance shall be final. As to relatively high levels of risk, the Risk Manager's decision shall be subject to review and approval by a reputable independent risk management consultant. The Authority shall fully implement and not deviate from said risk management plan; provided, however, that the Authority may amend the risk management plan from time-to-time so long as it provides a copy to Homestake prior to implementation. Until such time as the risk management plan has been adopted and implemented, and a copy provided to Homestake, the original provisions of this Section 6.10 (prior to this Amendment) shall remain in full force and effect.

Appendix B
Standard Indemnification Clause

To the fullest extent permitted by law, [Contractor][Consultant] (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 or employee of the Indemnifying Party but only to the extent of the Indemnifying Party's negligence, misconduct, error or omission or the negligence, misconduct, error or omission of the of an officer, agent, subcontractor of any tier, consultant, 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.

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 benefit acts, or other employee benefit acts.

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, and the invitees, licensees, contractors, directors, officers, employees, agents, and any other person that Barrick or Homestake invites upon or authorizes to enter SURF.

Appendix C
Acknowledgment of Risk

Name: _____

Affiliation: _____

Date: _____

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

ACKNOWLEDGEMENT OF RISK

**Must be signed before going underground.
Persons under the age of 18 are not permitted underground.**

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 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 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

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

ACKNOWLEDGEMENT OF RISK

trapped, being crushed to death, and numerous other serious apparent and unapparent risks to my health, life and safety, and risk of damage to my property.

(Initial) ____ 4. Without limiting the generality of paragraph number 1 above, I am further aware that access to and presence in the Authority's Underground Property will require me to be in close proximity to others, such that compliance with the recommendations of public health agencies concerning physical distancing may not be possible. My access to and presence within the Authority's Underground Property may result in my exposure to biological contaminants, viruses, and other communicable diseases including but not limited to Covid-19. I am aware that accessing the Authority's Underground Property involves the potential for exposure to biological contaminants, including viruses, and other communicable diseases which may result in my untimely death, numerous other serious apparent or unapparent risks to my long-term health and well-being, life and safety, and could result in permanent debilitation, injury and death.

(Initial) ____ 5. I acknowledge that accessing the Authority's Surface Property or the Authority's Underground Property while under the influence of alcohol, cannabis (including medical cannabis), and other drugs is strictly prohibited. I further acknowledge that doing so may increase the possibility of injury or death.

(Initial) ____ 6. I acknowledge I have the time, knowledge, and experience to make an intelligent choice concerning whether to assume the risk associated with my entry, and activities upon or in the Authority's Surface Property, the Authority's Underground Property, or both.

(Initial) ____ 7. 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) ____ 8. 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) ____ 9. 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) ____ 10. 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) ____ 11. I have been provided and have read and signed (or will sign), a document entitled "RELEASE, AGREEMENT NOT TO SUE AND WAIVER."

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

ACKNOWLEDGEMENT OF RISK

(Initial) _____ 12. I acknowledge that I have provided valid personal identification to Authority Personnel.

I HAVE READ THIS ACKNOWLEDGEMENT OF RISK, CONSISTING OF THREE PAGES AND TWELVE 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.

ANY CHANGE TO THE PRE-PRINTED TERMS OF THIS DOCUMENT IS VOID AND UNENFORCEABLE.

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:

ONLY SDSTA PERSONNEL MAY ACT AS WITNESSES

Witnessed by: _____
[Print Name]

Witnessed by: _____
[Signature]

Logged by: _____
[Print Name]

Appendix D

Release, Agreement Not to Sue and Waiver

Name: _____

Affiliation: _____

Date: _____

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

**Must be signed before going underground.
Persons under the age of 18 are not permitted underground.**

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 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 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 bodily 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, bodily 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, whether arising in tort, contract, or otherwise. 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

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

RELEASE, AGREEMENT NOT TO SUE AND WAIVER

(Initial) _____ (c). The 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 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; and

(Initial) _____ (f). The Sanford Underground Research Facility Foundation ("SURFF"), its officers, directors, organizers, managers, employees, agents, consultants and representatives, and any visitor, contractor, consultant, or any other person (natural or otherwise) that SURFF directs to, invites, or permits upon, or authorizes to use the Authority's Surface Property or the Authority's Underground Property, leasehold interest or licenses, and their agents, representatives, consultants, lessees, licensees, and invitees.

(Initial) _____ 3. I understand that this document does not act to release, discharge, or waive any rights I may have as against my employer 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 assigns (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, representatives, successors, and assigns (including, but not limited to, my spouse and other family).

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

RELEASE, AGREEMENT NOT TO SUE AND WAIVER

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

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.

ANY CHANGE TO THE PRE-PRINTED TERMS OF THIS DOCUMENT IS VOID AND UNENFORCEABLE.

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:

ONLY SDSTA PERSONNEL MAY ACT AS WITNESSES

Witnessed by: _____
[Print Name]

Witnessed by: _____
[Signature]

Logged by: _____
[Print Name]

Appendix E
Standard Insurance Requirements

1. Category One "Negligible Risk" - No insurance is required unless special circumstances warrant otherwise.

2. Category Two "Low Risk"

A. Minimum Insurance - Prior to commencement of work, the Contractor or Project Participant will procure and maintain the following insurance.

- i. Commercial general liability insurance with limits of liability not less than \$1,000,000.00 per occurrence, \$2,000,000.00 general aggregate, including 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 injury and advertising injury.
- ii. Business automobile for leased and/or owned automobiles, liability insurance with limits not less than \$1,000,000.00 combined single limit per accident for bodily injury and property damage. Such insurance shall include coverage for owned, non-owned, and hired automobiles.
- iii. For contracts involving professional services, professional liability insurance coverage (Errors and Omissions Coverage) with limits not less than \$1,000,000.00 per claim and annual aggregate. If professional liability coverage is required, coverage shall be maintained for a period of no less than three years after completion of the work under the agreement or, if policy is cancelled, extended reporting period to equal the same.
- iv. 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, or if not available, such other coverage as is described in subsection III.E.4 of the Risk Transfer Protocols.

B. Insurance Provisions Applicable to Coverages in Category Two ("Low Risk")

- 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, Inc., 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 any Contractor or Project Participant; products and completed operations of any Contractor or Project Participant; premises owned, leased, or used by any Contractor or Project Participant; and automobiles owned, leased, hired, or borrowed by any Contractor or Project Participant. The coverage shall contain no special limitations on the scope of protection afforded to SDSTA, its officers, directors, or employees. All additional insureds coverage must include ongoing and completed operations.
- b. Contractor's or Project Participant's insurance coverage shall be primary insurance as respects SDSTA officers, agents, and employees. Any insurance or self-insurance maintained by SDSTA, its officers, agents, and employees shall not contribute with Contractor's or Project Participant's insurance.
- c. Any failure to comply with reporting provisions of the Contractor's or Project Participant's policies by the Contractor or Project Participant shall not affect coverage provided SDSTA, its officers, agents, and employees.
- d. Coverage shall state the Contractor's or Project Participant'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.
- e. Coverage shall contain a waiver of subrogation in favor of SDSTA and its officers, agents, and employees, the State of South Dakota and officers, agents, and

employees, ; Barrick Gold Corporation, Homestake Mining Company of California, and the affiliates of each 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 or allow to authorize to use SURF; Fermi Research Alliance, LLC, and its officers, agents, and employees; and the United States Department of Energy and its officers, agents, and employees.

ii. Workers' Compensation and Employers' Liability

- a. Coverage shall contain a waiver of subrogation in favor of the SDSTA, its officers, agents, and employees; Fermi Research Alliance, LLC, and its officers, agents, and employees; and the United States Department of Energy and its officers, agents, and employees; and 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 or allow to authorize to use SURF.

iii. All Coverages

- a. Each insurance policy or other coverage document 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 evidence of compliance with the insurance requirements above. To the fullest extent possible, the Contractor or Project Participant must provide complete, certified copies of all required insurance policies or documentation of self-insurance if requested by the SDSTA.
- d. Acceptability of Insurers – Commercial Insurance shall be placed with reputable insurers acceptable to the SDSTA with an A.M. Best rating of A, VII or higher.

C. Pollution Liability

Contractor's pollution liability insurance is required for construction contracts of \$50,000.00 or more and for equipment procurement or installation when the installation or testing of the equipment involves the use of asphyxiants (including otherwise benign gases or vapors which displace breathable air) or the use of hazardous or other materials excluded from coverage under a commercial general liability policy. 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, Inc., 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 or allow or authorize 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.

3. Category Three "Intermediate Risk"

A. Minimum Insurance - Prior to commencement of work, the Contractor or Project Participant will procure and maintain the following insurance:

- i. Commercial general liability insurance with limits of liability of not less than \$5,000,000.00 per occurrence, \$5,000,000.00 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. These limits of liability may be achieved through a combination of commercial general liability insurance and a follow-form excess or umbrella policy.
- ii. In the case of leased or owned automobiles, business automobile liability insurance with limits not less than \$1,000,000.00 combined single limit per accident for bodily injury and property damage. Such insurance shall include coverage for owned, non-owned, and hired automobiles.
- iii. For contracts involving professional services, professional liability insurance coverage (Errors and Omissions Coverage) with limits not less than \$3,000,000.00

per claim and annual aggregate. If professional liability coverage is required, coverage shall be maintained for a period of no less than three years after completion of the work under the agreement or, if policy is cancelled, extended reporting period to equal the same. Professional liability coverage shall not be required of Project Participants who are self-performing the design of equipment associated with an experiment located at SURF or the employees of such Project Participants.

- iv. 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, or if not available, such other coverage as is described in subsection III.E.4 of the Risk Transfer Protocols.

B. Insurance Provisions Applicable to Coverages in Category Three ("Intermediate Risk")

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, and employees; University of Chicago and its officers, agents, and employees; Universities Research Association, Inc., 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 or allow or authorize 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 or Project Participant; products and completed operations of Contractor or Project Participant; premises, owned, leased, or used by Contractor or Project

Participant; and automobiles owned, leased, hired, or borrowed by Contractor or Project Participant. The coverage shall contain no special limitations on the scope of protection afforded to the SDSTA, and its officers, agents, and employees. All additional insureds coverage must include ongoing and completed operations.

- c. Contractors or Project Participant 's insurance coverage shall be primary insurance as respects SDSTA officers, agents, and employees. Any insurance or self-insurance maintained by SDSTA, its officers, agents, and employees shall not contribute with Contractors or Project Participant 's insurance.
- d. Any failure to comply with reporting provisions of the Contractor's or Project Participant's policies by the Contractor or Project Participant shall not affect coverage provided SDSTA, and its officers, agents, and employees.
- e. Coverage shall state that Contractor or Project Participant '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 the SDSTA and its officers, directors, agents, and employees; the State of South Dakota and its officers, directors, 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 or allow or authorize to use SURF; Fermi Research Alliance, LLC, and its officers, agents, and employees; and the United States Department of Energy and its officers, agents, and employees.

ii. Workers' Compensation and Employers' Liability

- a. Coverage shall contain a waiver of subrogation in favor of the SDSTA and its officers, agents, and employees; Fermi Research Alliance, LLC, 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 or allow or authorize 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 the work, the Contractor or Project Participant shall furnish the SDSTA with certificates or other proof evidencing compliance with the insurance requirements above. 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. Changes and Amendments to Requirements

- i. The Risk Manager, in consultation with the Risk Management Consultant, may modify (but not make more restrictive) any of the requirements for Category 3 above after taking into account whether the activity will be underground or on the surface, the duration, the nature and complexity of any activity taking place underground; and the SDSTA's potential exposure to loss resulting from the activity.

D. Subcontractors and Consultants

- i. The categories of risk and insurance requirements for each shall apply not only to the general contractor, but also to all subcontractors, consultants, and others doing work in connection with a contract or Project under the direction or auspices of a Contractor or Project Participant. A category of risk and the applicable insurance requirements will be determined on a "per subcontractor" or "per consultant" basis, taking into account the particular work to be done by the subcontractor or consultant and the interrelationship of that work to other work being conducted by

the Contractor or Project Participant. When SDSTA is the contracting party (as "owner" or equivalent), SDSTA will determine the categories of risk and applicable insurance requirements for subcontractors and consultants, and require proof of the existence of such insurance as provided in these Protocols. When FRA or a Project Participant is the contracting party (as a subcontractor to DOE or "owner" or equivalent), SDSTA must approve the categories of risk and applicable insurance for the general contractor (as between FRA or the Project Participant and the contractor). The categories of risk and applicable insurance requirements for all subcontractors shall be determined by the general contractor (as between FRA or the Project Participant and the contractor), taking into account the work to be done by the general contractor and the interrelationship of that of that work with other work to be undertaken by the subcontractor; provided, however, that in no event may the limits required of a subcontractor doing work on the Surface Property only be less than \$1,000,000.00 per occurrence and \$2,000,000.00 aggregate, nor may the limits required of a subcontractor doing any work in the Underground Property be less than \$5,000,000.00 per occurrence and \$5,000,000.00 aggregate. The general contractor (as between FRA or Project Participant and the contractor) shall certify to SDSTA that it has required appropriate limits of liability of its subcontractors utilizing the criteria set out in this subparagraph and that the subcontractors have such insurance in place.

E. Pollution Liability

Contractor's pollution liability insurance is required for construction contracts of \$50,000.00.00 or more and for equipment procurement or installation when the installation or testing of the equipment involves the use of asphyxiants (including otherwise benign gases or vapors which displace breathable air) or the use of hazardous or other materials excluded from coverage under a commercial general liability policy. 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, Inc., 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 or allow 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.

4. Category Four ("Other Risk")

A. Minimum Insurance - Prior to commencement of work, the Contractor, or Project Participant will procure and maintain the following minimum types and levels of insurance:

- i. Commercial general liability insurance with limits of liability of 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 OR greater per accident, as determined by the Risk Manager in collaboration with Independent Risk Consultant. Such insurance shall include coverage for owned, non-owned, and hired automobiles.
- iii. For contracts involving professional services, professional liability insurance coverage (Errors and Omissions Coverage) with limits of \$3,000,000.00 per claim and \$3,000,000.00 annual aggregate or \$5,000,000.00 per claim and \$10,000,000.00 aggregate for contracts involving design work for excavation and other work involving a risk of subsidence or collapse in the Underground Property. If professional liability coverage is required, coverage shall be maintained for a period of no less than three years after completion of the work under the agreement or, if policy is cancelled, extended reporting period to equal the same. Professional liability coverage shall not be required of Project Participants who are self-performing the design of equipment associated with an experiment located at SURF or the employees of such Project Participant.
- iv. 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, or if not available, such other coverage as is described in subsection III.E.4 of the Risk Transfer Protocols.

B. Insurance Provisions Applicable to Coverages in Category Four (“Other Risk”)

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, its officers, agents, and employees; University of Chicago and its officers, agents, and employees; Universities Research Association, Inc. 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 or Project Participant ; products and completed operations of Contractor or Project Participant ; premises, owned, leased, or used by Contractor or Project Participant ; and automobiles owned, leased, hired, or borrowed by Contractor or Project Participant . The coverage shall contain no special limitations on the scope of protection afforded to the SDSTA, its officers, directors, or employees. All additional insureds coverage must include ongoing and completed operations.
- c. Contractors or Project Participant ’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 Contractors or Project Participant ’s insurance.

- d. Any failure to comply with reporting provisions of the Contractor's or Project Participant's policies by the Contractor or Project Participant shall not affect coverage provided SDSTA, its officers, directors, and employees.
 - e. Coverage shall state that Contractor or Project Participant '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 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 invite onto, allows or authorizes to use SURF..
 - g. 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.
- ii. Workers' 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, allows 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 the 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. Changes or Amendments to Requirements

- i. The Risk Manager may modify (but not make more restrictive) any of the requirements in the sections above after taking into account whether the activity will be underground or on the surface, the duration, the nature and complexity of any activity taking place underground; and the SDSTA's potential exposure to loss resulting from the activity.

D. Subcontractors and Consultants

- i. The categories of risk and insurance requirements for each shall apply not only to the general contractor, but also to all subcontractors, consultants, and others doing work in connection with a contract or Project under the direction or auspices of a Contractor or Project Participant. A category of risk and the applicable insurance requirements will be determined on a "per subcontractor" or "per consultant" basis, taking into account the particular work to be done by the subcontractor or consultant and the interrelationship of that work to other work being conducted by the Contractor or Project Participant. When SDSTA is the contracting party (as "owner" or equivalent), SDSTA will determine the categories of risk and applicable insurance requirements for subcontractors and consultants, and require proof of the existence of such insurance as provided in these Protocols. When FRA or a Project Participant is the contracting party (as a subcontractor to DOE or "owner" or equivalent), SDSTA must approve the categories of risk and applicable insurance for the general contractor (as between FRA or the Project Participant and the contractor). The categories of risk

and applicable insurance requirements for all subcontractors shall be determined by the general contractor (as between FRA or the Project Participant and the contractor), taking into account the work to be done by the general contractor and the interrelationship of that of that work with other work to be undertaken by the subcontractor; provided, however, that in no event may the limits required of a subcontractor doing work on the Surface Property only be less than \$1,000,000.00 per occurrence and \$2,000,000.00 aggregate, nor may the limits required of a subcontractor doing any work in the Underground Property be less than \$5,000,000.00 per occurrence and \$5,000,000.00 aggregate . The general contractor (as between FRA or Project Participant and the contractor) shall certify to SDSTA that it has required appropriate limits of liability of its subcontractors utilizing the criteria set out in this subparagraph and that the subcontractors have such insurance in place.

E. Pollution Liability

Contractor's pollution liability coverage is required for construction contracts of \$50,000.00 or more and for and for equipment procurement or installation when the installation or testing of the equipment involves the use of asphyxiants (including otherwise benign gases or vapors which displace breathable air) or hazardous or other materials excluded from coverage under a commercial general liability policy. 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, Inc. 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.

F. Large "Other Risk" projects.

Coverage for large "Other Risk" projects shall be provided as set out in Article III, Subsection F.2 of these Protocols.

Exhibit F

Sample Certificate of Insurance:

Evidencing Compliance with Insurance Requirements in Category 2



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No. Ext):	FAX (A/C, No):
INSURED Contract Party	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A:	ABC Insurance Company
	INSURER B:	123 Insurance Company
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER:	X	X	123456789X	8/1/2023	8/1/2024	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 1,000,000 SIR/Deductible \$ 50,000
A	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY	X	X	123456789X	8/1/2023	8/1/2024	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		X	123456789Y	8/1/2023	8/1/2024	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
B	Professional Liability (Errors & Omissions)						Per Claim Annual Aggregate

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

CANCELLATION

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

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

AGENCY CUSTOMER ID: _____
LOC #: _____



ADDITIONAL REMARKS SCHEDULE

Page 1 of 2

AGENCY		NAMED INSURED Contract Party	
POLICY NUMBER			
CARRIER	NAIC CODE	EFFECTIVE DATE: 8/1/2023	

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: 25 FORM TITLE: Certificate of Liability Insurance

Barrick Gold Corporation, Homestake Mining Company of California and the Affiliates of Barrick and Homestake and each of its and their Representatives; the State of South Dakota; the South Dakota Science and Technology Authority and its officers, agents, employees, and representatives; Fermi Research Alliance, LLC, and its officers, agents, employees, and representatives; University of Chicago and its officers, agents, and employees; University Research Association, LLC and its officers, agents, and employees; and the United States Department of Energy are included as Additional Insureds with respect to the General Liability and Auto Liability policies. General Liability Coverage is provided on a primary, non-contributory basis. A Waiver of Subrogation is granted in favor of the Certificate Holder and its officers, agents, employees, and representatives; the United States Department of Energy; and Barrick Gold Corporation, Homestake Mining Company of California, and each of its and their Affiliates and Representatives. See those and other applicable endorsements attached. A 30-day notice of cancellation provision is provided in favor of the Certificate Holder.

Exhibit G

Sample Certificate of Insurance:

Evidencing Compliance with Insurance Requirements in Category 3



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:		
	PHONE (A/C, No, Ext):	FAX (A/C, No):	
	E-MAIL ADDRESS:		
	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A: ABC Insurance Company		
	INSURER B: 123 Insurance Company		
INSURED Contract Party	INSURER C: YXZ Insurance Company		
	INSURER D:		
	INSURER E:		
	INSURER F:		

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	X	X	123456789X	8/1/2023	8/1/2024	EACH OCCURRENCE \$ 5,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ 5,000,000 GENERAL AGGREGATE \$ 5,000,000 PRODUCTS - COMP/OP AGG \$ 5,000,000 SIR/Deductible \$ 50,000
A	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY	X	X	987654321Y	8/1/2023	8/1/2024	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE/OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		X	678912345Z	8/1/2023	8/1/2024	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
B	Professional Liability (Errors & Omissions)			123456789A	8/1/2023	8/1/2024	Per Claim 3,000,000 Annual Aggregate 3,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER South Dakota Science and Technology Authority 630 E. Summit Street Lead, SD 57754	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
----------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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AGENCY CUSTOMER ID: _____
LOC #: _____



ADDITIONAL REMARKS SCHEDULE

AGENCY		NAMED INSURED Contract Party	
POLICY NUMBER			
CARRIER	NAIC CODE	EFFECTIVE DATE: 8/1/2023	

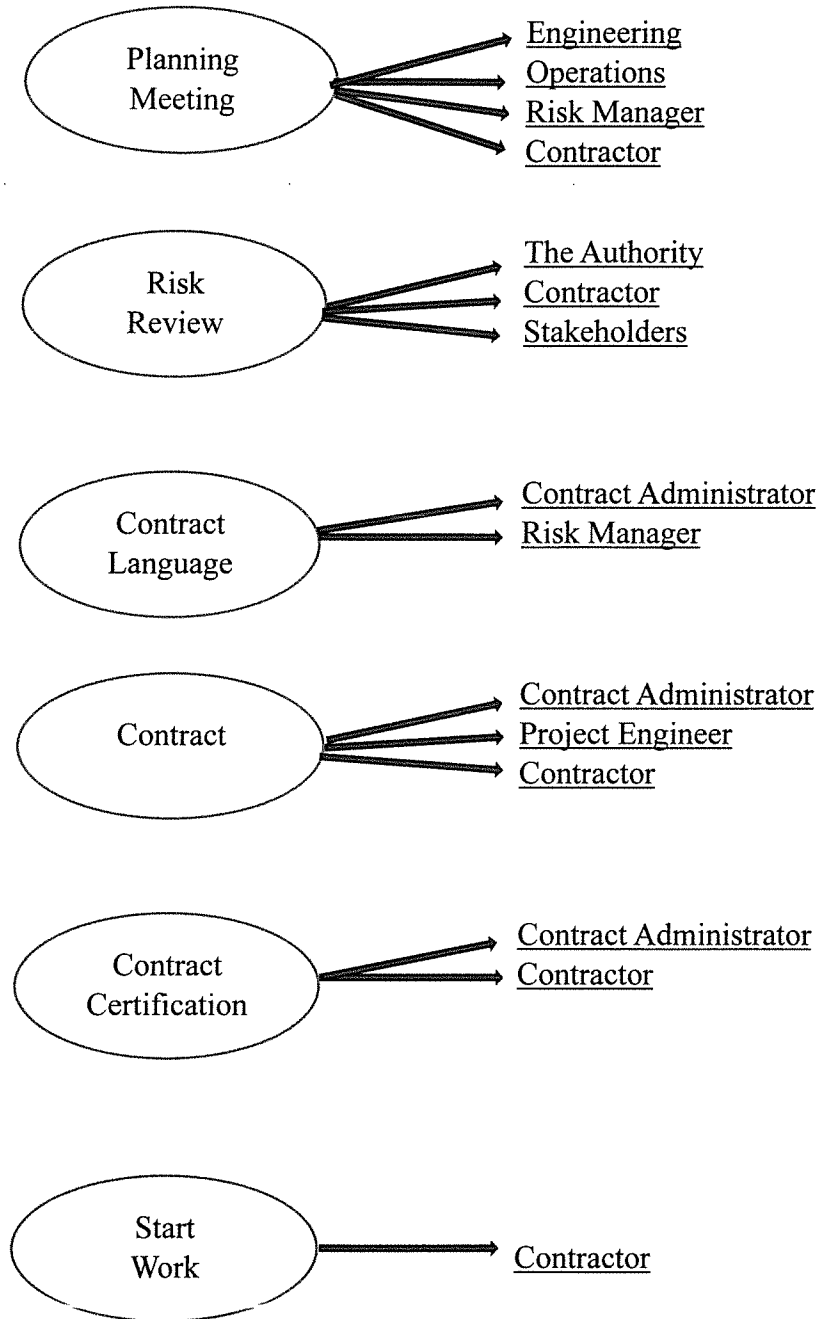
ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: 25 FORM TITLE: Certificate of Liability Insurance

Barrick Gold Corporation, Homestake Mining Company of California and the Affiliates of Barrick and Homestake and each of its and their Representatives; the State of South Dakota; the South Dakota Science and Technology Authority and its officers, agents, employees, and representatives; Fermi Research Alliance, LLC, and its officers, agents, employees, and representatives; University of Chicago and its officers, agents, and employees; University Research Association, LLC and its officers, agents, and employees; and the United States Department of Energy are included as Additional Insureds with respect to the General Liability and Auto Liability policies. General Liability Coverage is provided on a primary, non-contributory basis. A Waiver of Subrogation is granted in favor of the Certificate Holder and its officers, agents, employees, and representatives; the United States Department of Energy; and Barrick Gold Corporation, Homestake Mining Company of California, and each of its and their Affiliates and Representatives. See those and other applicable endorsements attached. A 30-day notice of cancellation provision is provided in favor of the Certificate Holder.

Appendix H
Risk Transfer Flow Diagram

Risk Transfer Work Flow Diagram

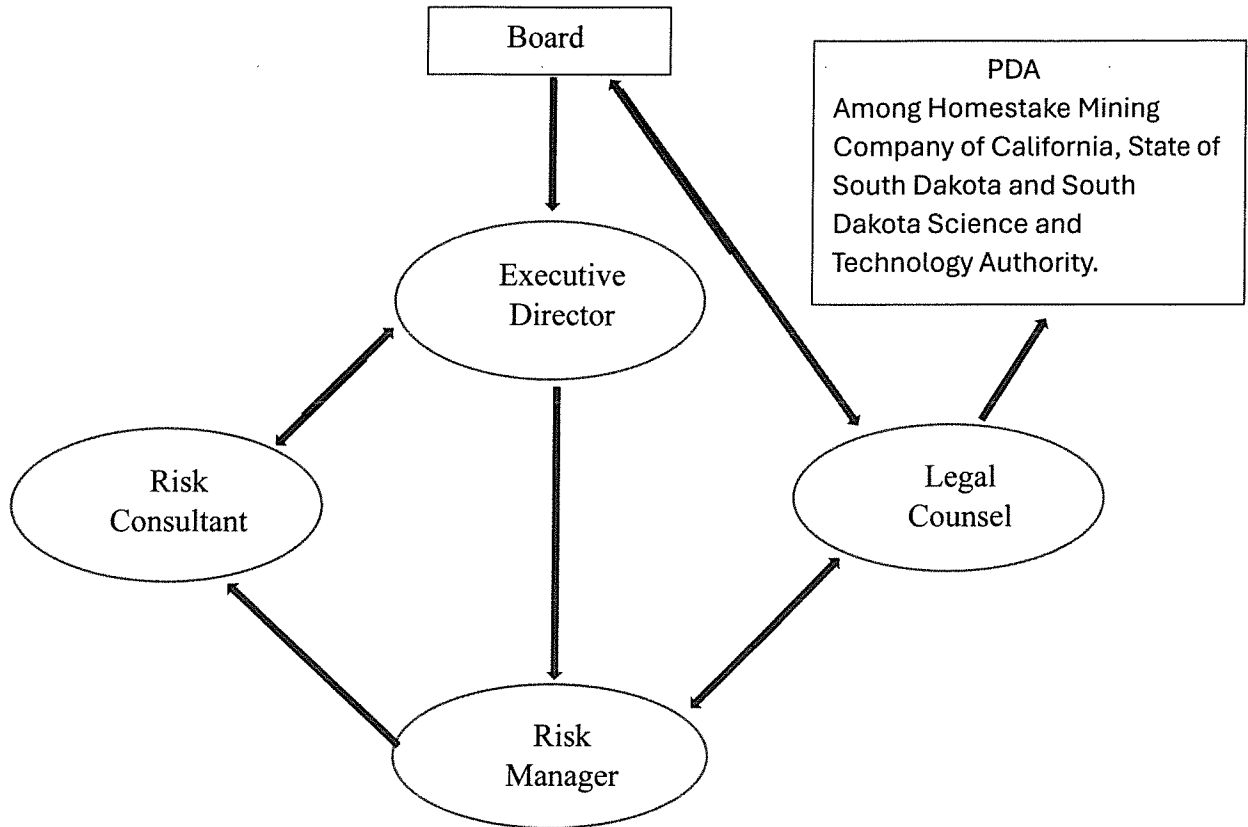


Contractor includes service providers, vendors, consultants, and Project Participants.

Flow Chart 1

Appendix I
Risk Management Diagram

Risk Management



Flow Chart 2

Appendix J
Supplementary Policy Guidance and Certificate of Insurance
Review Checklist

SUPPLEMENTARY POLICY GUIDANCE
A. RECOMMENDED CONTRACT REVIEW PROCESS

South Dakota Science and Technology Authority
Contract Review Checklist

Date _____
Contractor _____
Contract Term _____
Contract \$ Amount _____
Name of Authority Representative _____

Key: Y = Yes; N = No; NA=Not applicable

_____ Is the construction contract or purchase order for materials total amount over \$25,000.00, if so please complete form and send form, supporting documents and contract to Legal Counsel for review.

_____ Legal Counsel reviews all change orders and other contracts and purchase orders as requested by SDSTA

Indemnification Provisions – this contract contains:

- _____ Modifications to Authority's Standard Indemnification Provision
- _____ Provisions limiting Contractor's damages or liability

Standard Insurance Requirements

Standard Insurance Requirements included:

- _____ Category 2 (Low Risk Surface Contract)
- _____ Category 3 (Other Contract Involving Surface or Underground)
- _____ Category 4 (Increased Risk Contract)

Waiver of Insurance Requirements

- _____ Insurance Requirement waived? If yes,
State type of coverage waived: _____
- _____ Risk Manager's written approval and/or risk management consultant approval attached?
- _____ Any part of general liability insurance requirements of Category 2, 3, 4 waived (III D 1-4)?
- _____ If yes, approval of Executive Director/Legal Counsel obtained?

Supplement to Standard Insurance Requirements

_____ Standard Insurance Requirements must be modified to include the following coverage(s) (USB Category 2,3,4 IN SECTION III.E. of GUIDELINES):

Insert a "✓" next to all insurance requirements that apply:

- _____ Aircraft Liability
- _____ Builders Risk
- _____ Cargo Insurance
- _____ Installation Floater
- _____ Pollution Liability
- _____ Professional Liability

Required Insurance Limits

_____ Are limits other than the standard limits required?

If "yes," indicate the revised limits for each applicable coverage and attach written recommendation from risk management consultant:

- _____ Commercial General Liability
- _____ Business Automobile Liability
- _____ Workers Compensation/Employers Liability
- _____ Aircraft Liability
- _____ Builders Risk
- _____ Cargo Insurance
- _____ Installation Floater
- _____ Pollution Liability
- _____ Professional Liability

Contract Involving Unique Risks

_____ Does the contract involve activities listed in SECTION III.C.1-4 of these guidelines with risks?

If yes, attach risk analysis and, if applicable the review of insurance limits from risk management consultant.

**South Dakota Science and Technology Authority
Certificate of Insurance Review Checklist**

Date _____
 Contractor _____
 Contract Term _____
 Prepared By _____

Key:
 ✓ = Criteria is met; U = Unsatisfactory; ? = Unable to determine; N/A = Not applicable

Applicable to ALL Contracts

_____ Insurer(s) maintain A.M. Best rating of A-, VII or better.
 _____ Contractor is identified as the insured.

	Coverage as required in the contract	Limit is same or greater than required in the contract	Policy in effect when contract commences
Commercial General Liability	_____	_____	_____
Business Automobile Liability	_____	_____	_____
Workers Compensation	_____	_____	_____
Employers Liability	_____	_____	_____
Supplemental Coverages ¹ :	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

_____ The South Dakota Science and Technology Authority, its officers, employees and representatives are named additional insureds on the Contractor's commercial general liability policy.
 _____ Declared self-insured retention is not \$100,000 or greater.
 _____ The Authority is identified as the certificate holder.
 _____ Certificate is signed.

¹ Identify other coverages required under the contract and verify whether these are identified on the certificate of insurance.

Certificate of Insurance Review Checklist

Key:
✓ = Criteria is met; U = Unsatisfactory; ? = Unable to determine; N/A = Not applicable

Where Evidencing Compliance with Contracts.

_____ Does the cancellation provision provide the Authority at least a thirty (30) days' written notice?

Where Evidencing Compliance with Contracts Using Category 4

The Contractor's commercial general liability insurance:

_____ Waives the insurer's right of subrogation against the Homestake Indemnified Parties.

_____ Includes a provision that the insurer will not raise any coverage defense based on the statutory immunity of the State, the South Dakota Science and Technology Authority or the Homestake Indemnified Parties.

_____ Does not include an insured versus insured endorsement.

_____ States that contractual liability coverage is at least as broad as ISO CG 00 01.

_____ Provides sixty (60) days' notice of cancellation or material change in coverage or condition via certified mail, return receipt requested.

Confirm date and time of next meeting—Chairperson Casey Peterson

The next board meeting is the annual meeting and will be held on Thursday, June 20, 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*

Recommended Action:
Informational.

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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 Dykhouse, Vice-Chairperson
3. Dr. Chris Fall
4. Ms. Pat Lebrun, Secretary-Treasurer
5. Mr. Roger Musick
6. Mr. Ron Wheeler
7. BHSU Pres. Steve Elliott, *ex-officio member*
8. SD Mines Pres. 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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