

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION
OF SCS CARBON TRANSPORT LLC FOR
A PERMIT TO CONSTRUCT A CARBON
DIOXIDE PIPELINE.

HP22-001

REBUTTAL TESTIMONY OF

DR. JON SCHMIDT

ON BEHALF OF

SCS CARBON TRANSPORT LLC

SCS EXHIBIT #

July 7, 2023

1 **Q. Please state your name and business address for the record.**

2 A. My name is Jon Schmidt. I am employed by EXP and my business address is 2510
3 Miccosukee Road, Suite 200, Tallahassee, Florida 32308.

4 **Q. What is your position with SCS Carbon Transport, LLC (“SCS”)?**

5 A. As part of the Project team, I am EXP’s Project Manager for providing environmental
6 project management services to SCS Carbon Transport LLC. Specifically overseeing the
7 environmental data collection, permit application preparation, and agency consultation

8 **Q. Please briefly describe your educational experience.**

9 A. I have a bachelor’s, master’s, and doctorate in biological sciences. I have been employed
10 as an environmental consultant for almost 34 years. My primary experience has been the
11 preparation of permit applications and regulatory filings for pipelines, powerlines, LNG
12 facilities, and natural gas storage facilities throughout the United States (U.S.). Over my career, I
13 have served as project task leader, project manager, project director, and owner’s environmental
14 representative for large infrastructure permitting projects covering multiple jurisdictions in the
15 U.S.

16 **Q. Have you previously submitted direct testimony and exhibits in this proceeding?**

17 A. Yes

18 **Q. What is the basis for your rebuttal testimony?**

19 A. I have reviewed the direct testimonies of:

- 20 • Amy Cottrell, ERM
- 21 • Alissa Ingham, ERM
- 22 • Hilary Morey, ERM
- 23 • Herbert Pirela, ERM

24 • Brian Sterner, ERM

25 **Q. Have you reviewed the direct testimony of Amy Cottrell of ERM?**

26 A. Yes.

27 **Q. Do you have any observations related to Amy Cottrell's testimony?**

28 A. Yes. Ms. Cottrell testifies that more detailed analyses of impacts to flora and fauna should
29 be required of the Applicant. The Applicant takes exception to this contention. Consistent with
30 Council on Environmental Quality (CEQ) regulations that characterize the analyses required for
31 a National Environmental Policy Act (NEPA) document, the Applicant focused the assessment
32 on impacts that were considered significant or specifically stated in the regulations. Pipeline
33 construction and operation has been shown in numerous NEPA documents and South Dakota
34 Public Utility Commission (SD PUC) proceedings to result in minor, localized impacts to surface
35 resources when coupled with the execution of best management practices. Several million miles
36 of pipelines exist in the U.S. that do not impede or impact wetlands (and restoration thereof after
37 construction), fisheries, wildlife, or vegetation in general.

38 Ms. Cottrell points out that there is little direct empirical information on the impacts of
39 CO2 to aquatic environments and the environment in general. First, it should be noted that the
40 Pipeline and Hazardous Materials Safety Administration (PHMSA) records document the
41 likelihood of leaks/releases from different product pipelines based on the miles of said pipelines
42 and the historic record of releases or leaks. Based on this data alone, the probability of a leak is
43 small, and with pipeline safety design requirements, will result in a localized and temporary
44 impact – there are other witnesses for the Applicant who can better speak to pipeline safety and
45 the probability of a leak occurring from the proposed pipeline project. Second, as stated in her
46 own testimony, there is little empirical evidence of what would happen in the event of a leak,

47 which is true. But the Applicant did perform an extensive review of the literature, and anecdotal
48 studies on CO2 in laboratory environments as well as the realities of the physical reactions that
49 would occur in the unlikely event of a release. Based on that review, CO2 released under
50 pressure in an aquatic environment would result in short-term and localized impacts.

51 **Q. Ms. Cottrell indicates that wetlands adjacent to streams be crossed using the**
52 **horizontal directional drilling (HDD) method and that riparian areas should be delineated**
53 **and specifically identified in Table 28 of the application. Ms. Cottrell also recommends**
54 **there is not enough information to determine the appropriateness of restoration methods**
55 **for wetland easement/conservation areas. What are your thoughts on these**
56 **recommendations?**

57 A. In the reissuance of the Nationwide Permit program, specifically Nationwide Permit
58 Number 58 (NWP 58), the U.S. Army Corps of Engineers (USACE) has determined pipeline
59 crossings of wetlands do not result in long term or significant impacts. For the proposed project,
60 the USACE will review and indicate specific wetlands or other waterbodies that require
61 avoidance with the HDD method and the Applicant will comply. Similarly, the USACE
62 permitting review does not require the delineation of the riparian zone along waterbodies, so it is
63 not necessary. Finally, until the USACE completes their permitting review, the appropriateness of
64 restoration approaches cannot be determined. Once this information is determined through the
65 USACE permitting process, the Applicant can provide it to the SD PUC.

66 **Q. Have you considered Ms. Cottrell's recommendations Summit should provide**
67 **information in the ECP on how post construction monitoring and operations will protect**
68 **wetlands and waterbodies?**

69 A. Such efforts are beyond the purpose of the ECP. General best practices are provided in
70 the main text of the application. Any post construction monitoring of wetlands or other
71 waterbodies required by the USACE will be included in their permit conditions.

72 **Q. What is your response to Ms. Cottrell's contention that impacts to aquatic species**
73 **has been inadequately completed and the impact assessment does not have cited literature**
74 **or expert analyses to support the conclusions?**

75 A. There are numerous Federal Energy Regulatory Commission (FERC) applications,
76 Interstate Natural Gas Association of America (INGAA) studies, and literature that document the
77 minor and temporary impacts pipeline construction has to aquatic species. The 36 years of
78 pipeline construction and operation experience of myself and others on the team has drawn upon
79 this body of best practices to make the statements provided in the application and my testimony.
80 In fact, the ECP is fashioned after the FERC *Wetland and Waterbody Construction and*
81 *Mitigation Procedures* (Procedures) and utilizes the main factor used in determining crossing
82 methods for streams. To paraphrase, the shortest time-frame used to cross a stream is the best
83 method to use, resulting in most minor streams being crossed with an open cut method, as
84 proposed for this Project. As for invasive species, the Application is clear that only surface
85 waters approved for use would be used for hydrotesting, followed by municipal sources.
86 Therefore, the Applicant does not anticipate using streams or rivers where invasive species are
87 prevalent. Finally, Ms. Cottrell indicates that impacts from HDD construction methods are not
88 discussed in the application; however, they are addressed in the ECP.

89 **Q. Ms. Cottrell proposes impacts to the pallid sturgeon are not adequately addressed**
90 **and tributaries to major rivers should be constructed using HDD methods. In your**
91 **professional opinion, what are your thoughts?**

92 A. The U.S. Fish and Wildlife Service (USFWS) has determined where the pallid sturgeon
93 may be present (the Missouri River) and the Applicant has agreed to HDD this waterbody,
94 avoiding direct impacts to the waterbody. The USACE and USFWS will finalize the impact
95 assessment in completing a Biological Assessment (BA) for the Project. At this time, the
96 USACE has determined that crossing of the Missouri River by the HDD method will result in a
97 “no effect” determination for the pallid sturgeon.

98 **Q. Are baseline impact analyses and mitigation measures necessary for non-ESA**
99 **species as recommended by Ms. Cottrell?**

100 A. This is a faulty assessment in and of itself. As I discussed previously, there is ample
101 information that the best practices proposed to build this Project will result in little to minor
102 impacts to non-listed species and therefore a detailed analysis is unwarranted, consistent with
103 CEQ guidelines on impact assessments. NEPA documents do not, and cannot by regulation,
104 study in detail all potential project impacts. Such analyses are unwarranted and unnecessary.

105 **Q. Ms.Cottrell indicates that additional information on how waterbody crossing**
106 **methods will be chosen and more details on implementing them are required. What is your**
107 **response to these contentions?**

108 A. As discussed above, the methods are chosen to reflect the best practices experienced by
109 the Project team over decades of experience permitting and building pipelines in the Midwest
110 specifically and the U.S. generally. These methods are chosen and described similarly to how
111 FERC describes their Procedures, and consistent with how those are chosen based on stream
112 width and water flow. Additional information is unnecessary, especially since the USACE and
113 USFWS have accepted the draft ECP to be used in their permitting review. Post construction
114 remediation plans are also not required; Cottrell appears to assumes there are negative impacts

115 from equipment access that are different than construction impacts along the pipeline right-of-
116 way (ROW). Measures described in the ECP are planned for temporary access roads and all
117 temporary workspace associated with stream crossing methods.

118 **Q. Ms. Cottrell observes an SPCC plan should be developed. Are there plans to prepare**
119 **such a document?**

120 A. A Spill Prevention, Control and Countermeasure (SPCC) Plan will be prepared if there
121 are plans to store at least 1,320 gallons of oil such that a catastrophic release could impact waters
122 of the U.S. If an SPCC Plan is prepared, it will accompany the notice of intent for the
123 construction Stormwater Pollution Prevention Plan (SWPPP).

124 **Q. Do you have any other observations concerning Ms. Cottrell's testimony?**

125 A. No.

126 **Q. Have you had an opportunity to review Alissa Ingham's testimony?**

127 A. Yes.

128 **Q. Are there any concerns with Ms. Ingham's testimony?**

129 A. Witness Alissa Ingham indicated in her pre-filed testimony in several locations that the
130 Applicant did not provide all land use types, specifically, noise sensitive land uses. In response to
131 an earlier data request by Commission staff, the Applicant provided a cross-reference table
132 indicating the land uses found in SDAR 20:10:22:18(1) and the National Land Cover database
133 categories. That table that was submitted as a response to Data Request 3.39 has been updated
134 below to include noise sensitive land uses.

135

Supplement Application Appendix 6C	South Dakota Categories used in other PUC Applications	Based on 20:10:22:18 - Land use
Barren Land	Barren Lands	Existing and potential extractive nonrenewable resources
Cultivated Crops	Cultivated Crops	Land used primarily for row and non-row crops in rotation
Developed, High Intensity	Developed / Developed Land	Public, commercial, institutional use and Noise Sensitive Land Use
Developed, Low Intensity	Developed / Developed Land	Rural residences and farmsteads, family farms, and ranches / Residential / Noise Sensitive Land Use
Developed, Medium Intensity	Developed / Developed Land	Rural residences and farmsteads, family farms, and ranches / Residential / Noise Sensitive Land Use
Developed, Open Space	Developed / Developed Land	Rural residences and farmsteads, family farms, and ranches / Residential / Public use / Noise Sensitive Land Use
Grassland	Hay/Pasture – Grassland / Hay/Pasture; Herbaceous	Undisturbed native grasslands
Hay/Pasture	Hay/Pasture - Grassland/ Hay/Pasture; Herbaceous	Pasturelands and rangelands / Haylands
Manmade Pond	Open Water / Water	Irrigated lands / water sources for organized rural water systems
Natural Pond	Open Water/ Water	Irrigated lands / water sources for organized rural water systems
Open Water	Open Water/ Water	Irrigated lands / water sources for organized rural water systems lands / Public use
Ephemeral	Riverine / Water	Potential source for irrigated lands
Intermittent	Riverine / Water	Potential source for irrigated lands

Supplement Application Appendix 6C	South Dakota Categories used in other PUC Applications	Based on 20:10:22:18 - Land use
Perennial	Riverine / Water	Potential source for irrigated lands / Public use
Deciduous Forest	Trees / Forest	Public Use
Shrub/Scrub	Shrub/Scrub	Public Use
PEM	Wetlands	~
PFO	Wetlands	~
PSS	Wetlands	~

136

137 **Q. Do you have any other observations concerning Ms. Ingham’s testimony?**

138 A. No.

139 **Q. Have you had an opportunity to review Hilary Morey’s testimony?**

140 A. I have.

141 **Q. Ms. Morey recommends above ground facilities be sited in areas that have been**
142 **previously disturbed. Do you have concerns with this recommendation?**

143 A. The Applicant has sited locations of facilities to incorporate the requirements of the
144 PHMSA regulations, the physical locations of shipper/ethanol plants for meter sites and
145 connection facilities, access to public roads, avoidance of wetlands, avoidance of listed species
146 habitat, and landowner preferences. Siting these facilities on previously disturbed areas is not
147 always possible with the constraints listed above.

148 **Q. Ms. Morey also recommends streams where the northern red-belly dace is known to**
149 **occur should be directionally drilled or bored. Thoughts on this?**

150 A. Biological field survey work continues. That data and consultation with the USACE and
151 USFWS will determine which streams are crossed using trenchless methods such as the HDD
152 method or bores.

153 **Q. The lined snake is another species that may intersect the proposed project's route.**
154 **Ms. Morey indicates additional avoidance and mitigation measures for the lined snake have**
155 **not yet been provided.**

156 A. The Applicant contracted with Westech Environmental Services, LLC (Westech) to
157 conduct surveys for the State Endangered lined snake (*Tropidoclonion lineatum*). Westech
158 consulted with South Dakota Game, Fish, and Parks (SDGFP) and received approval of their
159 proposed survey methods. Prior to field survey, Westech identified potentially suitable habitat on
160 the Project through a review of lined snake habitat identified by the SDGFP Environmental
161 Review Tool, review of aerial imagery, and review of pre-construction habitat assessments
162 completed by Perennial Environmental Services in 2021. The pre-field review found very little
163 non-cultivated habitat within the mapped range of lined snakes within the Project footprint and
164 only three sites, totaling 5 acres, were identified.

165 At the time of survey in July 2022 only one of the three sites, comprising two acres, was
166 accessible. At that location Westech observed no lined snakes or evidence of their presence, and
167 no lined snake habitat was present.

168 At the inaccessible proposed survey location immediately west of the Big Sioux River
169 (on Tract SD-LI-104-155.100), a review of aerial imagery and of habitat from a public road
170 crossing approximately 0.2 mile away found that the site is a closed canopy deciduous forest
171 bordered by cultivated land on the west and the Big Sioux River on the east. Due to the dense
172 forest canopy and the lack of open grassland, this site likely does not provide habitat for the lined

173 snake. Also, the entire survey location (potential habitat) is included within the horizontal
174 directional drill of the Big Sioux River and will be avoided. There are no aboveground facilities
175 proposed to be located on this tract.

176 At the second inaccessible survey location (on Tract SD-LI-104-149.000), a review of
177 aerial imagery and of habitat at a public road crossing approximately 0.5 miles away found that
178 the site contains a perennial stream with scattered deciduous trees and shrubs and an understory
179 of smooth brome. The surrounding fields are cultivated. This site could potentially provide
180 habitat for the lined snake, although the likelihood is low given that the understory vegetation is
181 not likely native. There are no aboveground facilities proposed to be located on this tract.

182 Both locations inaccessible for survey in 2022, remain so today. If the locations cannot be
183 surveyed during the appropriate seasons prior to the start of construction or if surveys observe
184 lined snakes, evidence of the presence of lined snakes, or lined snake habitat, the Applicant
185 proposes to:

- 186 • Install silt fence on the perimeter of the workspace immediately prior (within one
187 day) to commencing construction when the lined snake is active (April – October)
188 until construction is complete and excavated areas have been backfilled,
- 189 • Visually monitor the enclosed area. Monitoring will be performed by a permitted
190 herpetologist/wildlife biologist prior to, and during, materials staging and
191 construction for lined snakes,
- 192 • Train construction crews on how to identify the species, and
- 193 • Cease construction if lined snakes are observed by the monitor and resume only
194 after the snake(s) has/have been relocated.

195 **Q. Ms. Morey in her testimony is concerned with potential impacts to the Shaner Game**
196 **Production Area (GPA) caused by the project? Can you explain how potential impacts will**
197 **be mitigated?**

198 A. The portion of the proposed route that will cross the Shaner GPA will be installed using
199 the HDD construction method. There will be no surface impacts. The Applicant is currently
200 working with Ryan Wendinger (SDGFP Habitat Program Manager) on securing an easement
201 across the Shaner GPA.

202 **Q. Do you have any other observations concerning Ms. Morey's testimony?**

203 A. No.

204 **Q. Have you had the opportunity to review the testimony of Herbert Pirela?**

205 A. I have.

206 **Q. Mr. Pirela indicates more detailed information is required to be filed with the PUC**
207 **prior to commencing construction. Does Summit plan on filing additional information to**
208 **the PUC?**

209 A. The Applicant fully expects to provide the SD PUC the updated ECP after agency
210 comments and permits are received, detailed SWPPPs filed in support of the construction
211 stormwater permits, updated alignment sheets, HDD plans by each contractor, Weed Control
212 Plan, and Agriculture Impact Mitigation Plan.

213 **Q. Mr. Pirela requests a Weed Control Plan be prepared for the proposed project. Will**
214 **Summit prepare such a plan?**

215 A. The Applicant will prepare and submit a Weed Control Plan to the SD PUC.

216 **Q. Mr. Pirela indicates the HDD plan provided to the PUC is lacking in detail**
217 **addressing inadvertent returns to aquifers, glacial deposits, or wetlands. How does Summit**
218 **plan to address these concerns?**

219 A. Each spread contractor will prepare HDD plans specific to the bores/HDDs within their
220 spread to address the specific issues associated with each crossing. The HDD plan provided to
221 date is a template for the contractors to follow. These spread-specific plans will be provided to
222 the SD PUC prior to construction.

223 **Q. Mr. Pirela recommends an agriculture impact mitigation plan (AIMP) be developed**
224 **for the proposed project and provided to the PUC. Will Summit prepare such a plan?**

225 A. The Applicant will prepare and submit an AIMP to the SD PUC.

226 **Q. Do you have any other observations concerning Mr. Pirela's testimony??**

227 A. No.

228 **Q. Have you had the opportunity to review Brian Sterner's testimony??**

229 A. Yes.

230 **Q. Mr. Sterner observes that the 401 Water Quality Certificate was not addressed in**
231 **the application.**

232 A. Yes, this was an unfortunate omission. In fact, the 401 Water Quality Certificate has been
233 issued by South Dakota Department of Agriculture and Natural Resources for the USACE NWP
234 58. The Applicant has filed permit applications to the USACE for coverage under NWP 58.

235 **Q. Mr Sterner also requests additional maps and drawings related to water resources.**

236 A. The Application in Appendix 6C provided hydrologic features in relation to the proposed
237 facilities in accordance with SD Code 20:10:22:15(1). As explained in the text in Section 5.2.1,
238 the Applicant is required to restore pre-construction grade for all hydrologic features crossed to

239 comply with their USACE permits. Therefore, there would be no need to show before and after
240 maps depicting drainage features other than what has already been provided. This is also
241 consistent with other recent applications for pipeline projects in South Dakota.
242 Sterner also requests maps of wellhead protection areas, aquifers, springs, seeps, and
243 groundwater flows. The application in Section 5.2.3 clearly states that any water use would
244 come from surface sources. Per SD Code 20:10:22:15(4), only if the aquifer will be used is there
245 a need to address mapping and assessment.

246 **Q. In Mr. Sterner's testimony, he lists some concerns related to the release of CO2 into**
247 **water resources and its impact to aquatic organisms. Can you address those concerns?**

248 A. Several sections of the application address CO2 release into groundwater, surface water,
249 and wetlands, all citing different sources of impact assessment. In addition, a response to a
250 previous data request, #3-8, the risk of a release is small based on PHMSAs records of CO2
251 pipeline safety. But to address Sterner's comments, the most probable adverse effect of a CO2
252 release into a flowing stream is a lowering of pH and direct toxicity effects. According to Henry's
253 Law, at 25 ° C, an equilibrium concentration of CO2 and water would approach 0.55 parts per
254 million which would not constitute a significant adverse impact to most fish species.
255 Oversaturation could occur adjacent to the leak site with CO2 concentration levels potentially
256 going as high as 1,500 parts per million. While CO2 concentrations at these levels would be
257 extremely toxic to fish, the possibility of many fish being killed would still be remote or virtually
258 nonexistent because (1) fish are mobile and most waterbodies crossed will move the CO2
259 downstream as well as dilute it, (2) a bubble stream from a leak would cause fish to avoid the
260 area, (3) a CO2 leak would be short term because of block valve safety precautions, and (4) a
261 leak or blowout is unlikely to occur at all. Sessile species (e.g., mollusks) would be more

262 vulnerable to increases in CO₂ levels in the water column because of their inability to move
263 locations. The CO₂ increases would have to occur consistently over a long period of time
264 (months) for impacts to be seen.

265 In addition, when CO₂ dissolves in water, about one-percent of it forms carbonic acid
266 (H₂CO₃), which almost immediately dissociates to bicarbonate anions and protons (HCO₃⁻).
267 This produces a solution of bicarbonate. Because surface waters are in equilibrium with
268 atmospheric CO₂ there is a constant concentration of H₂CO₃ in the water. The presence of
269 limestone and other calcium carbonate rock in lakes and streams helps to maintain a constant pH
270 because the minerals react with the excess acid. When water is in equilibrium with both CO₂ and
271 carbonate containing rock, the pH of the water is buffered to a pH of 8.3, close to the pK_a of the
272 weak acid bicarbonate HCO₃⁻ (pK_a = 8.4). Due to the presence of alkaline soils and limestone
273 bedrock, South Dakota surface waters average a pH of 8.2. The solubility of CO₂ in water is a
274 function of both the temperature and the salinity of the water, where CO₂ is more soluble in
275 freshwater than seawater, and solubility decreases with increasing temperature.

276

277 **Q. Mr. Sterner indicates a concern with the temperature of hydrostatic test water and,**
278 **whenever it is discharged, its potential impacts to the ground or receiving waters. Mr.**
279 **Sterner recommends a permit condition requiring the water to reach ambient temperature**
280 **before discharge.**

281 A. Mr. Sterner does not provide scientific evidence that heating occurs or is detrimental to
282 the ground surface during discharge. Nevertheless, temperature changes greatly affect pressure
283 during hydrostatic testing, because of this, Operators generally implement a “stabilization”
284 period to allow the water filled pipeline to equalize to ground temperature. The Applicant will

285 aim for a 12-hour stabilization period unless it is determined that pipe temperature has been
286 equalized with ground temperature. The Applicant will comply with South Dakota permit
287 requirements for the general hydrostatic test water discharge permit.

288 **Q. Mr. Sterner indicates the Applicant has not consulted with NRCS or South Dakota**
289 **regarding lands enrolled in their programs.**

290 A. The Applicant did file FOIA requests to the USDA and NRCS for all lands in their programs.
291 None are crossed. The information is held in confidence, and the Applicant was required to submit FOIA
292 requests. The Applicant has also worked with the State of South Dakota for lands enrolled in any of their
293 programs or lands jointly held with the U.S. Government or other entities. The Applicant also worked
294 with the USFWS to avoid lands held in grassland easements and federally held lands.

295 **Q. In his testimony, Mr. Sterner indicates that potential impacts to vegetation have**
296 **been inadequately addressed in the application.**

297 A. This is contradicted by the text found throughout the application that indicates most of the land is
298 in agricultural use, will be restored to that use, and that reclamation will occur in concert with the
299 landowner, NRCS, and County weed boards to ensure the land returns to previous uses. Air cleaning and
300 water cleaning are both accepted methods in the Midwest to clean construction equipment both by the
301 weed boards and prior project experiences in the area. The ECP has been developed with federal and state
302 agencies and is consistent with other recently constructed projects in South Dakota. The testimony
303 provided by Mr. Sterner are inconsistent with practice “The Project should not let temporary disturbed
304 lands revert back to pre-construction conditions.” (lines 396-397). That is inconsistent with landowner
305 requirements and best practice in the pipeline industry.

306 **Q. Mr. Sterner also has concerns regarding “high rutting hazard soils”.**

307 A. The Applicant is unclear of what type of soil this is since all major soil categories and problem
308 area soils are addressed in the application section 5.1.4 and in the ECP following best industry practices.

309 **Q. When will determination for ESA-listed species be finalized and how will wildlife**
310 **entrapment during construction activities be addressed?**

311 A. The USFWS and USACE will complete the ESA process in the course of reviewing and
312 approving the NWP 58 applications. Wildlife entrapment in excavations will be addressed by the
313 USFWS if deemed necessary as a risk, however the project is not found in any big game ranges or
314 overwintering areas and therefore this requirement is unnecessary nor consistent with other pipeline
315 projects in South Dakota.

316 **Q. Mr. Sterner expressed concerns the application does not list specific mitigation**
317 **measures addressing impacts to wildlife.**

318 A. Specific measures are not required when agencies have already deemed construction and
319 operational activities of pipelines to have minor impacts and therefore warrant general and nationwide
320 permits be issued. If there were impacts that rose to the level requiring individual permits, then specific
321 mitigation measures would be warranted.

322 **Q. Does this conclude your testimony?**

323 A. Yes.

324

325 Dated this 7th day of July, 2023.

326

327

328 /s/ Dr. Jon Schmidt

329 Dr. Jon Schmidt