EXHIBIT C.6

New Mexico Designation

IN THE SUPREME COURT OF THE UNITED STATES
BEFORE THE OFFICE OF THE SPECIAL MASTER
HON. MICHAEL J. MELLOY

STATE OF TEXAS	)	
	)	
Plaintiff,	)	
	)	Original Action Case
VS.	)	No. 220141
	)	(Original 141)
STATE OF NEW MEXICO, and STATE OF COLORADO,	)	
	)	
Defendants.	)	

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REMOTE ORAL AND VIDEOTAPED DEPOSITION OF
ROBIN CYPHER
SEPTEMBER 21, 2020

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REMOTE ORAL AND VIDEOTAPED DEPOSITION of ROBIN CYPHER, produced as a witness at the instance of the Defendant State of New Mexico, and duly sworn, was taken in the above-styled and numbered cause on September 21, 2020, from 2:00 p.m. to 4:08 p.m., before Heather L. Garza, CSR, RPR, in and for the State of Texas, recorded by machine shorthand, remotely at the offices of HEATHER L. GARZA, CSR, RPR, The Woodlands, Texas, pursuant to the Federal Rules of Civil Procedure and the provisions stated on the record or attached hereto; that the deposition shall be read and signed.

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Bonnie DeWitt

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WITNESS: ROBIN CYPHER

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THE VIDEOGRAPHER: The time is 2:00 p.m. We're on the record.

ROBIN CYPHER,

having been first duly sworn, testified as follows:

E X A M I N A T I O N

BY MR. ROBLES:

Q. Will you please state and spell your name?

A. Robin Cypher, R-O-B-I-N, C-Y-P-H-E-R

Q. Ms. Cypher, have you ever had your deposition taken before?

A. No, I have not.

Q. I know that your attorney has probably talked to you about the deposition and, you know, what to expect, but there are some things that I want you to know about the deposition that I'm going to take of you. If I ask a question that is confusing, difficult to understand, would you let me know that?

A. Absolutely.

Q. And if, for example, I ask a question and you want to consult with your attorney, would you let me know that, as well?

A. Yes, I will.

Q. And if for any other reason, you want to take a break, again, this is a deposition, not an interrogation, would you let me know that, as well?

A. Yes, I will.
Q. It'd be fair to say that you've been asked to testify in this deposition as a representative of -- of the Texas Commission on Environmental Quality?
A. That's correct.
Q. Before we begin your testimony, I want to learn a little bit about your experience that makes you qualified to sit in the position that you currently hold. Would you please tell us about your education that's relevant for this matter?
A. I have a master's in wildlife biology from Southwest Texas State University. I worked two-and-a-half years in an environmental laboratory running wet chemistry samples followed by two-and-a-half years collecting field samples, water quality samples. I was then hired in 2001 as an aquatic scientist by -- by the Texas Commission on Environmental Quality for the Surface Water Quality Monitoring Program.
Q. So before -- I want to ask a little more detail about your experience and education. I take it you must've received a bachelor's degree in some particular subject; is that right?
A. That's correct.
Q. And what was -- and what degree did you

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receive?

A. I received a BA in journalism.

Q. And when did you receive that degree?

A. 1990.

Q. And from what university or college?

A. Again, Southwest Texas State University.

Q. How did you find yourself changing course and going from journalism to wildlife science?

A. It was something that always interested me, science. I just chose journalism initially.

Q. And when did you receive your master's degree?

A. I believe it was 1997.

Q. At this particular university, what does it mean to have master's degree in wildlife science?

A. I don't understand your question.

Q. What is the subject -- what subject matter -- what is the subject matter of wildlife science?

A. It can be a mixture of the analogy, aquatic ecology, land management, fire ecology, mammology, plant science.

Q. In receiving that -- that particular degree, how much chemistry -- how many -- how much chemistry did you study?

A. I had two classes of inorganic chemistry and

one class of organic chemistry.

Q. Now, you had mentioned that you worked four years before being hired on with the Texas Commission of Environmental Quality; is that right?

A. Not quite. Five years. Two-and-a-half in the laboratory and two-and-a-half in the field.

Q. And what was the name or laboratory where you were employed for I believe two years?

A. So Lower Colorado River Authority.

Q. And is that a governmental agency?

A. It's a quasi governmental agency.

Q. What do you mean by that?

A. They are not exactly state governments, but they were mandated by the state government to manage water --

Q. What --

A. And electricity and --

Q. I apologize for interrupting. And if at any point, I stop you from completely answering a question, would you let me know that, as well?

A. Sure.

Q. In the course of your work for that particular organization, did you examine water quality?

A. I don't understand your question. I analyzed

water quality samples, and I collected water quality samples. I did not evaluate the data.

Q. When you say -- when you use the term analysis, what do you mean?

A. Analytical analysis -- laboratory and analytical analysis.

Q. Then I believe you were employed by another agency; is that right, for approximately three years?

A. No. That's incorrect.

Q. All right. Did you stay with the same agency and then take a different position?

A. That is correct.

Q. Okay. What position is that?

A. It was, again, at the Lower Colorado River Authority, and it was in their field services area.

Q. What did you do in that field services area?

A. I collected water quality samples throughout the Colorado River basin in the State of Texas.

Q. Aside from collecting water samples, did you conduct any analysis or do any subsequent work with those samples?

A. No, I did not.

Q. What year did you begin your work at the Texas Commission on Environmental -- for Environmental Quality?

A. 2001.
Q. And what position were you hired?
A. As an aquatic scientist on the Surface Water Quality Monitoring Team.
Q. Since 2001, have you changed positions at the Texas Commission on Environmental Quality?
A. No, I have not.
Q. So it's fair to say that as we sit here today in 2020, you hold the same position; is that correct?
A. That is correct.

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Q. Now, I've seen -- what would be the best way to explain it -- that you have been listed as a project quality assurance specialist. Does that sound right?
A. For the SWQM project, yes, I'm a quality assurance specialist, it's one of my duties.

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Q. Okay. So would you please explain to me what it means to be a project quality assurance specialist?
A. The EPA requires a quality assurance project plan for any of their grant funded projects. The SWQM program works under the EPA grant, so they're required to have a grant, a QAPP. I moderate that document. I maintain it.

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Q. So do you supervise others in the performance of their work? Is that a fair assessment of one of

the -- one of the tasks as a project quality assurance specialist?

A. Part of our quality assurance program is to conduct field audits on our TCEQ region staff who collect water quality samples under this QAPP. Me and my team go out every year to look at the -- to observe our region staff collecting water quality samples, look at their data handling, their data management, make sure that they have all the required equipment and follow the procedures.

Q. Is it correct to say that you work for the Surface Water Quality Monitoring Program?

A. That is the program that I work under, yes.

Q. Would you please explain the mission or the goals of the Surface Water Quality Monitoring Program?

A. Our goal is to monitor and assess the data for the statewide waters of Texas.

Q. What is the process by which the Surface water Quality Monitoring Program identifies problems in surface water?

A. Most generally, it is through the Texas integrated report of Surface Water Quality, 305B, 303B list?

Q. So when you say that, what is the process by which you've developed that particular report?

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A. In general, the Clean Water Act states that states must provide further quality of the data every two years. On even number of years, we produce a report called the integrated report. What we have is our data in the database that's provided to us by stakeholders -- sorry -- data providers and region staff. Those data are evaluated against the water quality -- the Texas state water quality standards to produce our 305B integrated report and 303B list.

Q. How does the Surface Water Quality Monitoring Program determine that in particular, let's just say a river, for instance, has an emerging problem that needs to be addressed?

A. One way through the integrated report is if it's determined to not be meeting its state standard or fails to meet the criteria that had been assigned to it in state standards or screening levels.

Q. Is it correct to say the surface water -- Surface Water Quality Monitoring Program evaluates the effectiveness of the various controls that are in place with surface water quality?

A. That could be part, but that is not entirely true.

Q. Why do you say that?

A. The controls that may be in place may not

have any -- may not actually be in a position where we can sample the water, if that makes sense.

Q. I would like to say yes, but I -- I am sorry. I did not follow. Would you please help me understand what you mean by that?

A. The -- the integrated report may be able to identify controls that are not working. That would just be one of the factors it could find, but there are many others. It's not the -- it's not the only thing integrated report would identify.

Q. Okay. So generally speaking, once data is collected and the -- and the data is -- is then assembled, how do you evaluate whether water quality for a particular water body is declining or becoming worse?

A. Well, with the integrated report, it is either meeting the standard or it is not meeting the standard.

Q. If we have a water body that essentially is becoming worse and becoming -- and is increasingly coming closer and closer to the standard, what efforts, if any, are undertaken to try to prevent water quality from diminishing to a point where it's below standard?

MS. BARFIELD: The question is overbroad

and outside the scope of the testimony the witness is designated to provide, particularly from a geographic standpoint.

Go ahead.

A. I cannot answer that question.

Q. (BY MR. ROBLES) Is it because -- I apologize. I interrupted you.

A. I cannot answer that question as stated.

Q. Is it because the question is confusing?

A. My scope does not include water quality management actions. It monitors.

Q. Who --

A. We don't improve or install water quality management plans in place.

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Q. What are quality assurance monitoring procedures?

A. Quality assurance monitoring procedures. I'm not sure I understand that question.

Q. So on the various documents on the TCEQ Website, as well as in the text of the Website, there is what's described as quality assurance monitoring procedures, and so does that ring a bell?

A. I think you've misstate -- okay.

Q. Okay.

A. I believe you mean the surface water quality

monitoring procedures.

Q. Fair enough. Thank you for correcting me. Would you please describe those procedures?

A. They are a list of standardized field procedures that are provided to -- well, our water quality samplers and other data providers that describe the procedures and protocols to be used when out in the field when collecting water quality samples.

Q. What are the procedures for determining total dissolved solids in a water body?

A. We use the multiprobe with the specific conductance sensor.

Q. What is a multiprobe?

A. A multiprobe is a field instrument that contains several sensors or may contain several sensors like dissolved oxygen, temperature, PH, and conductivity.

Q. So is it correct to say that a legible current is run through the water, and that is a manner in which it is determined how -- you know, the total -- the dissolved solid load in that particular water body? Is that a fair statement?

A. No.

Q. How would you describe it?

A. Conductivity is the measure of electrical current running based on the anion/cation balance in a water system that dissolve ions. The multiprobe, if equipped with a conductivity sensor, can measure that electrical current. There is an algorithm within the sensor that can convert conductivity measurements into total dissolved solid measurements; however, for TCEQ, we only collect specific conductance. For the integrated report, we determine total dissolved solids by multiplying the specific conductance by a factor.

Q. So correct me if I'm wrong, but I believe it's your testimony that TCEQ only looks for certain identified dissolved solids?

A. That is not correct.

Q. What -- how would you restate that question, so that it is correct?

A. I don't understand your question to be able to restate it.

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Q. Okay. So what other dissolved solids for which TCEQ searches when it evaluates surface water?

A. Total dissolved solids is a sum of dissolved salts, some organics, and maybe some other constituents. It's very dependent upon the geophysical area that it's in. So it's the sum of a lot of different salts.

Q. So it's correct to say that when TECQ determines total dissolved solids in a water body, it looks for salts?

A. Salts are a part of total dissolved solids.

Q. Okay. So, now, are you saying that you do not look for salts or that salts are a component of dissolved solids?

A. Salts are a component of total dissolved solids.

Q. In your evaluation of a water body, does TCEQ conduct the sort of testing that will be able to identify salts as opposed to the other types of dissolved solids that may be in a water body?

A. We additionally look at sulfate and chloride.

Q. So is it -- and correct me if I -- if I misunderstand. Is it -- is it correct to say that when TCEQ examines the total -- the total dissolved solids in a water body, it looks -- it determines the content of salts?

A. Again, inorganic salts are a part of total dissolved solids.

Q. What are the Texas surface water quality standards?

A. They are the criteria that are used -- that have been assigned to water bodies to meet assigned

uses, such as aquatic life use, contact recreation use, fish consumption use, public water supply use.

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Q. Where would I find those standards?

A. Those standards are available on the TCEQ Website.

Q. Now, what is -- is it -- are these standards developed by TECQ or some other governmental body?

A. They are developed by TCEQ, and I believe some of them are in conjunction with EPA.

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Q. Do you know what the stand -- what standard is set for total dissolved solids in a particular water body in the State of Texas?

A. Total dissolved solids are site specific, meaning that each water body may have a different total dissolved solid assigned to it in the standard.

Q. How is a determination made as to the -- I guess the -- the base level for total dissolved solids in a particular water body?

A. I can't answer that. I do not know that answer.

Q. Where would I go to find the different base levels of total dissolved solids in the different water bodies in the State of Texas?

A. I can't answer that question.

Q. Is it because that question is confusing?

A. Yes.
Q. Okay. Now, if I'm -- correct me if I'm wrong, but I believe you stated that different water bodies have different set standards for total dissolved solids; is that right?
A. That is correct.
Q. Okay. Where would I go to find that information?
A. That is in the Texas water quality standards.
Q. Do you know how it is determined what is the set standard for total dissolved solids for a given water body?
A. I would have to refer you to the Texas water quality standard for that particular water body.
Q. I was asking if you knew.
A. I would refer to the Texas water quality standards for that criteria for that water body.

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Q. What is the total maximum daily load program?
A. The TMDL program identified -- water bodies identified through the integrated report as having an impairment. The TMDL program may -- if it's an appropriate water body, they may implement a plan to reduce permitted loadings to that water body so that it can maintain its -- it can meet the standard.

Q. So the program, is it correct to say it's a

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technical analysis as to the maximum load of a pollutant that a water body can receive and still attain water quality standards?

A. I cannot speak for the TMDL program. I do not know how they come up with those plans.

Q. Now, do you -- do you know what an implementation plan is?

A. Yes.

Q. What is an implementation plan?

A. Once a TMDL has been accepted by EPA, approved by EPA, an implementation plan is initiated, which, again, describes the sources or potential sources for the loadings into a water body.

Q. So is it correct to say that an implementation plan is a -- is a series of measures that are meant to reduce the total load of a particular pollutant in a water body?

A. I believe it can be part of that. It -- TMDLs are -- are -- plans are generally focused towards permitted dischargers.

Q. So then let me ask this question: What is a point source?

A. A point source is, say, an end of pipe, a -- a direct contributor to a -- to discharge into a water body.

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Q. So a point source could also be the source of a pollutant for a given body of water; is that right?
A. It could be, correct.
Q. What are point source controls?
A. That is outside my purview.
Q. Okay. Is it -- based on your understanding of implementation plans, is it correct to say that point source controls are used to control the introduction of pollutants into a water body?
MS. BARFIELD: Lacks foundation. Lacks foundation. It's also outside the scope of her designated testimony.
Q. (BY MR. ROBLES) You can go ahead and answer.
A. That's outside of my purview.
Q. Who is responsible for making the determination that a particular water body should have an implementation plan at the TCEQ?
A. I believe the TMDL team makes that assessment.
Q. So you used an acronym. What does that acronym, TMDL, stand for?
A. The total maximum daily load team program.
Q. Is it your understanding that point source controls are -- or I should say that point sources are identified in order to determine whether they

contribute to pollutants in a particular water body?

MS. BARFIELD: It's overbroad and outside the scope of her designated testimony.

Q. (BY MR. ROBLES) You can go ahead and answer.

A. That's outside of my purview.

Q. What is a water quality categories and management strategy?

A. After water bodies have been assessed through the integrated report, they are assigned a category. The categories will determine what management strategies may be assigned to them going forward.

Q. Who determines whether the appropriate category has been signed?

A. I believe it's a mix of programs, our program and the TMDL program.

Q. Okay. What role does the EP -- the Environmental Protection Agency play in the development of water quality categories and management strategy?

A. I can't answer that.

Q. Now, you mentioned that there are five water categories; is that right?

A. There are five main water categories, yes.

Q. Okay. What is Category No. 1?

A. Category No. 1, I believe, means all uses are

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fully supporting.

Q. When you use the term "all uses are fully supporting," what does that term mean?

A. The water quality standards assigns uses to water bodies if they all meet the uses through the integrated report, then they're assigned a Category 1.

Q. So when you say "uses," what do you mean?

A. Aquatic life use, contact recreation use, public water supply use, fish consumption use.

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Q. So it's fair to say that a Category 1 -- Category 1 rating means that the particular water body is available for all uses?

A. I believe that's a fair thing to say.

Q. What is Category 2?

A. I believe a Category 2 means that it's meeting some of its uses, but not all. There was enough data to assess for at least some of its uses.

Q. What is done, if anything, if a particular water body is in Category 2?

MS. BARFIELD: Overbroad; outside the scope of her designated testimony, which was limited to the geographic area of the Rio Grande basin.

Q. (BY MR. ROBLES) You can go ahead and answer.

A. Category 2 is nothing usually happens to my knowledge. You just continue routine monitoring.

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Q. What is Category 3?
A. I believe Category 3 is that no uses were assessed.
Q. So are you saying that the TCEQ would not have conducted a study or that there's just no data available?
A. There was no data available.
Q. When does that generally occur, when there's no data available?
A. It can occur for a number of reasons. The -- the assessment requires that data would fall within a seven to ten-year period of record. There may not be data within that designated period of record. The sample site at that water body may have been dropped for some reason or another. The data provider decided to move their resources elsewhere.
Q. What is Category 4?
A. Category 4 are water bodies that have been impaired, have been determined not to be a use or uses, and it has three subcategories. It has a 4A, a 4B, and a 4C.
Q. So what is -- what is Category 4A?
A. 4A means that the water body was impaired, but an implementation plan is in place.
Q. Is -- is there a particular threshold that

needs to be met so that a water body does require the implementation -- or the -- I guess the -- the application of an implementation plan?

A. I cannot answer that question.

Q. What is Category 4B?

A. I believe Category 4B is the impairment was caused by a pollutant not pollution.

Q. What is the distinction between a pollutant and non pollution?

A. A pollutant could be something that is natural, like a -- a high metal is naturally found in the ground. There's -- there's no management that's going to reverse that, or it could be something like there is a dam in place for hydroelectric and that dam is not going to be removed.

Q. So if I understand -- help me understand this. If a naturally-occurring pollutant exists in a water body, that is not necessarily a particular problem for which the implementation plan would be appropriate?

MS. BARFIELD: The question is overbroad and outside the scope as phrased for her defined testimony.

Q. (BY MR. ROBLES) You can go ahead and answer.

A. It would depend on what the problem is or

what the implementation plan is for.
Q. You had mentioned a naturally-occurring mineral essentially acting as a pollutant in a water body. Do you remember that?
A. I mentioned a metal.
Q. A metal. Okay. So let's take your example of a metal that's naturally occurring, polluting a water body. If it's naturally occurring, is that reason enough not to impose an implementation plan?
MS. BARFIELD: The question is overbroad, goes outside the scope of her defined testimony, and potentially calls for expert testimony. She's designated to talk about what's going on in the Rio Grande basin area. The question is also incomplete hypothetical. There's a lot going on there.
Q. (BY MR. ROBLES) Are you able to answer the question?
A. No, I cannot.
Q. What is Category 5?
A. Category 5 is assigned to waters that are impaired -- that have been found to be impaired through the integrative report.
Q. As you use the term impaired, what do you mean?

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A. The water bodies are not meeting their uses as described in the water quality standards.

Q. So is it correct to say that Category 5 -- a water body that's in Category 5 is no longer usable in a category that you've previously described?

A. I don't know what you mean by "usable."

Q. Okay. So if a water body no longer meets the applicable water quality standards, is it correct to say it's no longer usable?

A. Again, I don't know what you mean by the word "usable."

Q. If a water body does not meet the applicable water quality standards, as defined under, you know, as defined by TCEQ, should that water no longer be used?

MS. BARFIELD: Overbroad, ambiguous, incomplete hypothetical, outside the scope of this witness's designated testimony, lacks foundation.

Q. (BY MR. ROBLES) Are you able to answer the question?

A. No, I cannot answer the question.

Q. So when a -- when the -- when the -- a water body falls between applicable water quality standard, what, if anything, should happen?

MS. BARFIELD: Same objections.

A. I don't know what that question means.
Q. (BY MR. ROBLES) So if a water body falls in Category No. 5, what, if anything, should happen?
MS. BARFIELD: Same objections.
A. Category 5 actually has three sub numbers to it. There's a 5A, 5B, and 5C. 5A, that water body is a candidate for a TMDL. 5B, that water body is a candidate for a potential water quality standards change. If it's a 5C, that water body will continue being monitored to verify that there is indeed an impairment.
Q. (BY MR. ROBLES) So how do you determine that a water body is impaired?
A. If the water body fails to meet the water quality standard.
Q. So is impairment the appropriate word to use as opposed to the way I was using the word use?
MS. BARFIELD: Vague and ambiguous.
A. I don't know what that means.
Q. (BY MR. ROBLES) So a water body in Category No. 5, right, it -- if a water body is in Category 5, it has impaired use?
A. It has an impairment, and could -- which will be a use, yes.
Q. Okay. So I wanted to make sure we understood

-- you know, that I understood what you meant by dissolved solids and total dissolved solids. How would you define dissolved solids?

MS. BARFIELD: Asked and answered.

A. Dissolved solids are a sum of the dissolved salts and some organics and possibly some metals. They are chiefly defined by the geology and the area around them.

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Q. (BY MR. ROBLES) What do you mean when you use the term total dissolved solids?

A. The sum of dissolved salts and organics and trace metals or even hydrocarbons can be in a total dissolved solid.

Q. When TECQ examines for total dissolved solids, does it look for any -- does it look for specific salts?

A. Again, total dissolved solids is a sum of dissolved constituents in a sample. Those constituents can be dissolved salts, hydrocarbons, and small organic -- little bit of organic matter.

Q. How would someone go about finding out the percentage or the amount of total dissolved solids that is, in fact, the salt as opposed to another inorganic material or organic material?

A. Salinity would probably be your best bet on

getting a determination of the amount of inorganic salts.

Q. How are inorganic salts identified in the integrated report?

A. We use total dissolved solids, which includes inorganic salts. There is also sulfate and chloride measurements.

Q. So is it fair to say that sulfate and chloride are individual ions?

A. They can be. If they disassociate, they can be. Sometimes they don't and maintain as the sulfate cation and chloride cation.

Q. Okay. But salts are generally the combination of two different ions, for example, sodium and chloride; is that right?

A. That is correct.

Q. So is there any way when I look at the integrated report to be -- so that I can determine how much or what percentage of total dissolved solids are, in fact, sodium chloride?

A. You cannot do that using the integrated report.

Q. Is there some other database that I could go to that the TCEQ maintains where I could look at a water body and determine how much sodium chloride is

in a particular water body?

A. Not that I know of. I can't answer that with any degree of certainty.

Q. Is there any place or database that TECQ maintains where I can go and determine how much of other salts, of potassium and magnesium salt, is in a given water body?

A. Our surface water quality database, the SWQM IS, S-W-Q-M, I-S, may have some of the data. Potassium magnesium are metals and so they would show up as a metal component or a metal constituent.

Q. Now, you -- and you said that very quickly so I'm going to give myself a little forgiveness. You used an acronym, and I can't -- I can't repeat the acronym because you said it quickly.

A. Sorry.

Q. But what is that acronym and what does it mean?

A. The database is S-Q-U-M-I-S, the surface water quality monitoring information system. It is the database that houses our surface water quality monitoring data.

Q. So is it fair to say that if I look through this particular database, I could find -- I could find what TECQ has recorded about the existence of sodium

chloride in the Texas water bodies that have been exempt?

A. You would find the analytical results if they were -- if samples were collected for them in the SWQM IS database -- in the water quality database.

Q. So I want to continue our conversation about terms so that you know that I know that you and I are talking about the same things. So when I say Basin 23, what does that mean to you?

A. Basin 23 is the Rio Grande basin.

Q. Now, as I understand it, TECQ has divided Basin 23 into 14 different segments; is that right?

A. It may be more than 14.

(Exhibit No. 3 was marked.)

Q. (BY MR. ROBLES) Okay. Well, I'm going to show you a map that's -- and ask you -- you recognize -- well, to help us hopefully get to the point where you and I are talking about the same thing. Do you see what's been marked Exhibit 3?

A. I am not seeing anything. Oh, there it is.

Q. There it is.

A. I do see a map.

Q. Do you recognize the map that 's marked Exhibit 3?

A. I recognize that it is part of the Rio Grande

basin.

Q. Do you recognize the various -- the legend was represented in the map in terms of the segments and the specific, I think they call IU -- or the acronym is IUID -- AIUD? I'm sorry.

A. The map appears to show station identificators -- identification for water quality stations, and it seems to de-mark segment boundaries.

Q. You seem rather hesitant as you answer questions about this particular map. Is there anything about it that makes you uncertain as to its accuracy or reliability in terms of helping us understand, you know, how that segment of the Rio Grande along the City of El Paso has been segmented and various stations that are located there?

A. I think I could understand it. It's just a bit cluttered, and I wanted to make sure I had everything down.

Q. So when I mentioned to you that there were 14 segments along the, you know, Basin 23, would this map help you know how many there are and how many there aren't?

A. This map shows again -- this map shows what are called classified segments. There may be additional segments that are called unclassified.

They are given a designation. Those are -- the classified water bodies are described in the water quality state standards. Un-classifieds tend to be smaller water bodies that are not described in the water quality standard.

Q. So I wanted to show you this particular map, and we -- I will end up talking to you about Segment 2314 and Segment 2308. Do you see those?

A. I do see those.

Q. Now, in your work with the TECQ, is it fair to say that you have had an opportunity to review the -- the collection of data from those two particular segments?

A. I have had the opportunity to observe our TCEQ region staff collect samples in the Rio Grande in that area.

Q. Okay. So what would be your role in the -- you know, in -- in supervising or conducting quality assurance testing of the data that's collected in that segment of the Rio Grande along the City of El Paso?

A. Again, as far as the quality assurance, my team goes out to all the region offices every other year -- every region office every other year so we get to watch observe them collecting water quality samples and managing the data, ensuring that they're

calibrating their instruments, collecting it as prescribed -- prescribed in the SWQM procedures manual. Quality assurance practices, the project specifications based in a QAPP, the laboratories sign off that they are following the reporting limits, and those, when they come into the TCEQ, they are screened by our data management and analysis team before they are loaded into the SWQM IS database, the surface water quality monitoring database.

Q. Are you part of the team that goes out to monitor the collection of those samples and subsequent analysis or do you supervise the team that goes out and monitors the collection of samples and the analysis of those samples?

A. The Surface Water Quality Monitoring Program coordinates the data collection with our TCEQ region staff and our other data providers, however, the Surface Water Quality Monitoring Program, my program, may occasionally be called upon to collect water quality samples, as well.

Q. What is your recollection about the type of work that you and your team have done in that segment that's identified in Exhibit 3, Segment 2314, 2308?

A. I -- outside of collecting routine water quality quarterly samples, I don't have any other

recollection of any other data sampling -- samples collection.

Q. In your review, the collection -- the samples from Segment 2314 and 2308, have you or your team members had any concerns about the validity or reliability of the samples collected?

A. We rely on the QA/QC procedures that we have in place.

Q. And in relying upon those procedures, have you had any concerns with the samples being collected from Segment 231 and 238 -- 2308, I'm sorry?

A. Not that I'm aware of.

MR. ROBLES: I see that we've gone a little -- gone about 50 minutes. Take a ten-minute break, and, you know, this is more for Theresa, I guess also for you. My guess is we'll finish about another hour or so.

MS. BARFIELD: Okay.

MR. ROBLES: All right.

MR. DUBOIS: Heather, this is Jim Dubois. You've got a phone number up instead of me anymore. It's (303) 241-1304. That's me.

THE REPORTER: Okay. Thank you.

THE VIDEOGRAPHER: The time is 2:54 p.m. We're off the record.

(Break.)

THE VIDEOGRAPHER: The time is 3:08 p.m. We're on the record.

Q. (BY MR. ROBLES) Who or what program at TCEQ is charged with identifying, managing surface water salinity?

A. I can't answer that question as it's stated because it's overbroad.

Q. Is there a person at TCEQ who has the responsibility, among other responsibilities, to identify the salinity levels in Texas' water bodies?

MS. BARFIELD: Overbroad; outside the scope of the geographic area that the witness is designated to talk about.

Q. (BY MR. ROBLES) You can go ahead and answer.

A. My Surface Water Quality Monitoring Program does not measure salinity in inland freshwaters. We only measure salinity in tidal or marine portions.

Q. So it's also correct to say that there is no program at TCEQ that is passed among other things to identify and manage salinity in surface -- or fresh -- surface water that is fresh?

A. I could only say that the Surface Water Quality Monitoring Program does not do that.

Q. Have you heard or do you know about the Rio

New Mexico Designation

New Mexico Designation

Grande Salinity Project?

A. I have heard of it.

Q. Okay. What have you heard about the Rio Grande Salinity Project?

A. That there was a Rio Grande Salinity Project. It's very limited in my knowledge.

Q. Okay. Well, you know, so much for mining the depths of your knowledge about that. From whom did you hear about the Rio Grande Salinity Project?

A. I think I may have heard it in passing in meetings. I cannot recall a specific person.

Q. Do you know if there is a person or people or program that is tasked in part to address the -- to become involved in and participate in the Rio Grande Salinity Project?

A. I do not know that answer.

(Exhibit No. 4 was marked.)

Q. (BY MR. ROBLES) I'm going to show you a document that is marked Exhibit 4. In preparation for your deposition today, did you review the document which is marked Exhibit 4?

A. No, I did not.

Q. Do you know who Linda, I believe it's Brookins, the director of water supply division, is?

A. I know her.

Q. Who is she?
A. The way I know her is she was once in my management chain, but that --
Q. Has --
A. -- was years ago.
Q. Okay. Or one of her subordinates ever discussed with you the Rio Grande Salinity Management Program?
A. Not that I recall.
Q. Do you know -- and this is from this document -- an individual named Herman Settemeyer?
A. I recognize the name.
Q. How do you recognize the name Herman Settemeyer?
A. I just recognize the name. Possibly from meetings in the past.
Q. Do you recognize the name Suzy Valentine?
A. Yes. Again, the name is from meetings.
Q. Have you ever heard or do you recall hearing from Herman Settemeyer anything about the Rio Grande Salinity Project?
A. I do not recall ever communicating with Herman Settemeyer.
Q. Do you ever recall hearing Suzy Valentine discuss the Rio Grande Salinity Project -- Management

Project?

A. I cannot recall that with any accuracy.

Q. Do you recall if the TCEQ had any meetings or seminars regarding their participation in the Rio Grande Salinity Management Program?

A. I do not recall.

Q. To your knowledge, who would be responsible or what program would be responsible for being involved in the Rio Grande Salinity Management program at TCEQ?

MS. BARFIELD: That there actually is a program with that title at TCEQ currently.

Q. (BY MR. ROBLES) You can go ahead and answer.

A. Because I don't know anything about the Rio Grande Salinity Management, I could not tell you who would be responsible for it.

Q. Am I wrong in saying that your particular program would be that program at TCEQ that would be best suited to identify and monitor salinity in the Rio Grande basin?

A. That would be a management decision.

Q. Is there another group or program that -- that is better suited than yours to identify and manage salinity in the Rio Grande basin?

A. I find that question to be sort of subjective

if I don't -- I can't answer that the way it's stated.

Q. Is there another group or program at TCEQ that has the training, experience, and knowledge to handle the management of Rio Grande facility program or a program like it?

A. Again, I don't know anything about the salinity management program, so I can't tell you if there are staff available.

Q. Is there another program or group in TCEQ that has the experience, knowledge, and training to handle -- to identify salinity and manage salinity in a particular river basin?

A. I cannot answer that question. It's overbroad.

Q. Why do you say it's overbroad?

A. Experience, knowledge, and training to identify and manage salinity in a particular river basin. It would depend on what they were trying to achieve.

Q. When you say it depends on what they're trying to achieve, what do you mean?

A. What they are trying to achieve through their management practice.

Q. So what is that program or group at TCEQ that has the -- the best resources available to it to

identify a salinity problem in a water model?

MS. BARFIELD: Overbroad; outside the scope of the testimony she's identified to discuss.

A. Again, my program does not measure salinity in inland freshwaters, only in marine and tidal.

Q. (BY MR. ROBLES) Do you know if a program at TCEQ's does examine salinity in inland freshwaters?

A. I do not know of a program that does that.

Q. Do you know if any person or program at TCEQ has developed estimates regarding the economic impacts of elevated salinity in fresh -- in freshwater bodies?

MS. BARFIELD: Objection; this witness is not designated on that bullet point in the notice as set forth in our response to the notice.

Q. (BY MR. ROBLES) Do you know if -- or you can go ahead and answer.

A. I do not have any knowledge about economic impacts.

New Mexico Designation

Q. I'm going to show you what's been marked Exhibit 5.

(Exhibit No. 5 was marked.)

Q. (BY MR. ROBLES) Do you see that in front of you?

A. Yes, I do.

Q. What is it?

New Mexico Designation

A. That appears to be a page from the 2020 integrated report for Basin 23.

Q. And, again, please take as much time as you'd like to review it -- I should say Exhibit 5 -- because I want to ask you questions about it.

A. Okay.

Q. From what you can tell, is Exhibit 5 a fair and accurate copy of a page of the 2020 Texas Integrated Report?

A. Yes. It appears to be.

MS. BARFIELD: I'm just going to object, too, that there's more than one page here. Were you intending that question to reflect just this first page?

MR. ROBLES: Right. There's, I think, 127 pages. I didn't think it --

MS. BARFIELD: Well, that was --

MR. ROBLES: -- it made sense to attach them all so I'm only referring to specific pages, if that answers your question.

MS. BARFIELD: Go ahead.

Q. (BY MR. ROBLES) Now, is this the integrated report that you had referenced in your earlier testimony today?

A. This is a portion of it.

Q. Now, would you help us -- would you walk us through this particular document, what is referred to by the acronym SEGID?

A. That refers to the segment ID, and it is a numeric designation.

Q. Now, I had shown you previously what was marked as Exhibit 2 -- or -- no, I'm sorry, it was Exhibit No. 3. Do you remember that? That was the -- the portion of Basin 23 that had the segments and stations identified on it.

A. Oh, the map.

Q. Yes. The map. So -- and I mentioned to you that I was going to refer to Segment 2314 from that particular map, and that's the -- the segment that's being referenced in Exhibit 5; is that right?

A. Yes.

Q. Now, what is an AUID?

A. An AUID stands for assessment unit ID.

Q. And what -- what -- what is that unit that's being assessed? Is it an area or something else?

A. It is a -- an area of a segment.

Q. So it's correct to say that this particular page deals with a segment that -- which is the Rio Grande above the International Dam; is that correct?

A. That is correct.

Q. And it's also reviewing an area from the International Dam upstream to the Anthony Drain confluence; is that right?

A. That is correct.

Q. Now, as we move down, I've highlighted certain sections that I want to ask you about. So do you see where it says, "General use"?

A. Yes.

Q. So I'm going to ask you about the particular columns that are underneath that section that is marked general use in Exhibit No. 5. Do you see dissolved solids?

A. Yes.

Q. Now, is it correct to say that certain dissolved solids are identified with specificity, like chloride, for instance?

A. Yes.

Q. And there's one for sulfate; is that right?

A. Yes.

Q. And then there's a column for total dissolved solids?

A. Yes.

Q. Now, it's correct to say that there is no -- there is no reference in this particular exhibit with regard to that portion of total dissolved solids that

is composed of salt; is that right?
A. Yes. That's correct.
Q. So as we move along from perimeter, period of record, and then you see criteria, do you see that?
A. Yes.
Q. Now, with regard to the third line, which is dissolved solids, total dissolved solids, do you see that number 1800?
A. Yes.
Q. Now, is -- is it correct to say that that 1800 number is -- is -- is supposed to represent all the constituents which make up total dissolved solids?
A. That is the criterion that has been assigned to Segment 2314 for total dissolved solids in the Texas Water Quality Standards.
Q. So what do you mean by criteria?
A. Criteria is the numeric criterion that has been assigned to the dissolved solids for the -- that -- a water body must meet that concentration of dissolved solids to be considered not impaired.
Q. So the criterion column represents a numeric value, which the water body should meet?
A. That is correct.
Q. And as I move along to the end column, do you see that CAT?

A. Yes.
Q. And you would agree with me that CAT represents category?
A. That's correct.
Q. And you and I had a discussion about what category means?
A. Yes.
Q. Now, as I look at this particular document, I do not see that -- or with regard to the total dissolved solids, that there is a category assigned to that particular constituent of surface water; is that right?
A. I do not see a category for total dissolved solids, no.
Q. Should the integrated report list the cat -- if applicable, the category to which the constituent, you know -- let me -- that was a horrible question.
Is it correct to say that the integrated report should list the category for the particular pollutant that's found in surface water that's listed in Exhibit 5?
A. The integrated report, the -- the water body will take on the -- how should I put this -- worst category. In this instance, you can see on a line above for recreation use, the bacteria was found to

exceed the state standard for E. coli, therefore, it's been assigned a Category 5C, and that would be the -- the water body would roll up to a Category 5C.

Q. If I remember correctly, you know, 5C represents a category in which an implementation plan is being considered; is that correct?

A. That's not correct.

Q. What is the correct definition for 5C?

A. 5C -- a water body in 5C is assigned for more monitoring to verify the impairment.

Q. But with regard to the -- to total dissolved -- or dissolved solids, it would be fair to say that nothing is listed under category?

A. That is correct.

Q. Is that an omission or oversight?

A. No. Since that water body is not found to have an issue with dissolved solids or, in fact, it looks like anything -- it's not failing to meet the state's standards so there's no water management plan that needs to happen so it's not assigned a category.

Q. I'm going to turn the page to Page 2 --

A. Okay.

Q. -- and then turn the page to Page 3. Do you see Page 3 of Exhibit 5 in front of you?

A. Okay. What page was I supposed to be looking

at?
Q. Well, I -- I apologize if I'm being confusing. I have attached four pages to this particular -- this particular exhibit --
A. Yes.
Q. -- but I understand your confusion because as you read down below, you see Page 126 of 127.
A. Yes.
Q. Do you see that page?
A. All right. I'm on Page 126 of 127.
Q. Of Exhibit 5. We're still talking about the same thing, I take it?
A. Yes.
Q. Now, this particular segment or I should say area, you would agree with me, is that area from the Anthony Drain confluence upstream to the New Mexico/Texas state line?
A. That is correct.
Q. Is that -- and I'm sorry. I know you nodded your head, but I didn't recall hearing an answer.
A. That is correct.
Q. Now, moving down to the general use where you see a method, is it correct to say that in this particular integrated report, there is no accounting for the presence of sodium chloride or a salt of any

other kind?

A. Could you restate that question?

Q. Is it correct to say that on this particular page of Exhibit 5, which is listed Page 126 of 127, is it correct to say that this particular portion of the report does not identify the existence of sodium chloride or another salt?

A. It does not single out sodium chloride.

Q. If -- if I was to ask you, where could I go in the TCE -- TCEQ database of documents and reports to find out what is the level of sodium chloride in that particular segment, where would I go?

A. I don't believe that we have a document like that, and our database contains data rather than reports.

Q. I apologize if I'm butchering the way that you-all collect information and store it. Is there somewhere where I could go find -- at TCEQ where I could find the data that would tell me or anyone else the salinity levels for this particular segment that we're referencing in Exhibit 5?

A. Surface water quality data are in the surface water quality monitoring information system, surface water quality database. Those data may be in there if they were collected.

Q. So as we sit here today, is it fair to say that you do not know if that database has collected information about the existence of sodium chloride, salt, in the waters -- the surface waters of the Rio Grande?

MS. BARFIELD: Mischaracterizes her testimony; vague and ambiguous.

Q. (BY MR. ROBLES) You can go ahead and answer.

A. To my knowledge, there is no data in the database for sodium chloride. There will be data for sodium, and there will be data for chloride. There will also be specific conductance, which could be converted to salinity.

Q. Do you know why the data is recorded so that there is no testing for sodium chloride, but there is testing for sodium separate and apart from the ion chloride?

A. Sodium is a metal that is tested for, and chloride is the anion that we have state standards for.

Q. Is there a reason why TCEQ tests for sodium?

A. Again, I believe there is a water quality standard for it.

Q. It's just simply not reflected in the Texas integrated report; is that a fair statement?

A. Let me think about this for a second. I would like to retract my statement. I do not know for sure that there is a water quality standard for sodium.

Q. In -- based on your experience having worked at TCEQ for almost 20 years, have you encountered a situation in which you, your team members, or a program has identified salinity as a problem in a freshwater -- fresh surface -- in fresh inland surface water?

MS. BARFIELD: Overbroad; vague and ambiguous; outside the scope of the testimony she's designated to give.

A. Throughout 20 years, yes, we have used the total dissolved solids or specific conductance pointed out that this -- a water body may have high salt content.

Q. (BY MR. ROBLES) I'm sorry. Are you finished with your question -- or your answer? I'm sorry.

A. I am. I am finished.

Q. Have you, a member of your team, or another program at TCEQ, have any of you identified elevated levels of salinities, sodium chloride, as -- as an issue of concern in Basin 23?

A. I could say that we have not identified

sodium chloride as a concern in Basin 23.

Q. Have you, any members of your team, or another program at TC -- TCEQ identified sodium as an issue of concern with regard to the surface water Basin 23?

A. Not to my knowledge.

Q. Have you, any members of your team, or any other program at TCEQ identified chloride as an issue of concern in the surface waters of Basin 23?

A. I cannot answer that with any surety. I would have to look at another report as part of the integrated report.

Q. What report is that?

A. It could either be the 303D list or it could be the impaired waters -- list of impaired waters, I believe it's called.

Q. So I'm going to show -- well -- I'm going to show you what's marked as Exhibit 6.

(Exhibit No. 6 was marked.)

Q. (BY MR. ROBLES) Do you recognize the document that's being presented as Exhibit 6?

A. It appears to be the 303D list for the 2020 integrated report.

Q. Okay. I apologize that it's a little -- let me shrink this down a bit. So it's correct to say I'm

only showing you one page of -- of a multi-page document; is that right?

A. That's correct.

Q. And is it correct to say that your program is responsible for compiling the information, which is presented in the Texas 303D list?

A. That is correct. My program produces this document.

Q. And I forgot to ask previously with regard to Exhibit No. 5. Is it correct to say that you and your program are responsible for compiling the information, which is contained in Exhibit 5, the integrated report?

A. That is correct.

Q. Now, turning your attention back to Exhibit No. 5, would you please explain what is a Texas 303D list?

A. The 303D list is a list of water bodies that are impaired -- found to be impaired -- determined to be impaired from the integrated report. They are water bodies that have been assigned to Category 5.

Q. So what does 303D refer to?

A. The clean water act, Section 303D.

Q. Of the federal or the state?

A. The federal Clean Water Act.

Q. Now, is it correct to say that this particular page of Exhibit 5 refers to a segment -- an area which is the Rio Grande below the Riverside diversion dam?

A. That is correct.

Q. Now, would you please explain, in general terms, what type of information is presented in the Texas 303D list with regard to the specific concerns that a particular surface water -- surface water might have?

A. That's a very vague question. Could you narrow it down, please.

Q. When preparing the Texas 303D list, what type of information do you and your program intend to show?

A. The 303D list shows the segment ID and the description of the segment, the impaired parameters, and the use that's -- those parameters fall under, the assigned category, and the year that this -- that this particular parameter was first listed or placed on the 303D list.

Q. Now, turning your attention to what's underneath that section that's for Segment 2307, is it correct to say that chloride was -- chloride in the water was identified as an impairment in this particular segment?

IN THE SUPREME COURT OF THE UNITED STATES
BEFORE THE OFFICE OF THE SPECIAL MASTER
HON. MICHAEL J. MELLOY

STATE OF TEXAS	)	
	)	
Plaintiff,	)	
	)	Original Action Case
VS.	)	No. 220141
	)	(Original 141)
STATE OF NEW MEXICO,	)	
and STATE OF COLORADO,	)	
	)	
Defendants.	)	

THE STATE OF TEXAS :
COUNTY OF HARRIS :

I, HEATHER L. GARZA, a Certified Shorthand Reporter in and for the State of Texas, do hereby certify that the facts as stated by me in the caption hereto are true; that the above and foregoing answers of the witness, ROBIN CYPHER, to the interrogatories as indicated were made before me by the said witness after being first remotely duly sworn to testify the truth, and same were reduced to typewriting under my direction; that the above and foregoing deposition as set forth in typewriting is a full, true, and correct transcript of the proceedings had at the time of taking of said deposition.

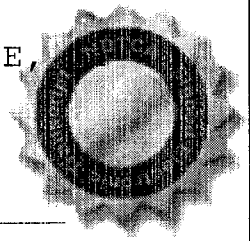
I further certify that I am not, in any capacity, a regular employee of the party in whose

behalf this deposition is taken, nor in the regular employ of this attorney; and I certify that I am not interested in the cause, nor of kin or counsel to either of the parties.

That the amount of time used by each party at the deposition is as follows:

MR. ROBLES - 01:52:10
MS. BARFIELD - 00:00:00
MR. DUBOIS - 00:00:00
MR. WALLACE - 00:00:00
MS. BARNCASTLE - 00:00:00

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this, the 8th day of October, 2020.



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S I G N A T U R E O F W I T N E S S

I, ROBIN CYPHER, solemnly swear or affirm under the pains and penalties of perjury that the foregoing pages contain a true and correct transcript of the testimony given by me at the time and place stated with the corrections, if any, and the reasons therefor noted on the foregoing correction page(s).

ROBIN CYPHER

Charlotte A. Fluedinger
Notary Public, State of Texas
Notary ID# 675084-8
My Commission Expires
August 22, 2021

Job No. 65506