

Presidents Message

SARAH DOWNS, ESQ., RPL SOUTHERN CALIFORNIA GAS COMPANY Welcome back LAAPL. I hope you all

had a well-rested summer. I returned to work after a 6-month hiatus following the birth of our 3rd child, Ryan. Towing three this summer has proved to be challenging when vacationing, but we were able to find a rhythm and make great memories along the way.

For the past few months, I've been reflecting on LAAPL, where we were when I first joined as a member in 2009 and where we are now in 2023.

Over the years I have surmised that our present self is quick to be critical, whereas our "future- self" often looks back with a less critical perspective. Think of that picture you took 10 years ago, you may have criticized your smile, posture, clothing etc... but looking back at your former "10-year younger self," you might think, "I was looking good!" You wish you had seen then, what you see now.

I imagine that's how we will look back at this time in history. A time where our current "Energy Transition" is criticized as brash, unstable, ill-founded and a plethora of other criticisms. Presently, every energy company is a company in transition, standing at an intersection of sustainability and innovation. Standing still will get us nowhere.

To quote Cliff Moore's Opinionated Corner; (See "The Override", VXIV, Issue 2 at 4) Cliff reminisces past transitions in energy that have changed the world, opining, "We innovate forward...change is inevitable. There is a time and place for change. Successful changes take a lot more time to innovate in our societies. Most successful changes are leaps and Presidents Message continued on page 2



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Meeting Luncheon Speaker

"TOP 10 WAYS TO BE YOUR TITLE Attorney's Favorite Landman



Kathryn Chandler is an attorney with the Holliday Energy Law Group based in San Antonio, Texas. Kathryn earned a Bachelor of Arts degree

from Texas Lutheran University in Seguin, Texas, and a law degree native from Texas Tech University School of Law in Lubbock, Texas. She is licensed to practice law in the states of Texas, New Mexico, and Colorado. Prior to her employment with Holliday Energy Law, Kathryn worked in-house for Concho Resources (now ConocoPhillips). focusing on title curative issues. She also has experience working in legal aid, in city government as a prosecutor, and in delinquent property tax collection. Kathryn currently splits her time between her hometown in west Texas and San Antonio. When she is not driving back and forth, she enjoys hiking with her spouse in the Big Bend region, gardening, and making sourdough bread.



Opinionated Corner JOE MUNSEY, RPL PAST PRESIDENT CO-NEWSLETTER CHAIR SOUTHERN CALIFORNIA GAS COMPANY

Welcome back from three months of rest and relaxation over the lazy days of summer. You should be in peak performance mode now and set for the end of the year race to holiday cheers.

For some lighthearted spoofs from "Media Climate Fact Check:"

- 🗸 In July "Media Climate Fact Check" turned around a Washington Post claim about July being the hottest in 125,000 years, headlining the report, "Worst Media Coverage In 125,000 Years."
- \checkmark Same July, "Media Climate Fact Check" noted that since U.S. satellite data on global temperatures have only been collected since 1979, it is impossible to compare temperatures from 100 years ago — or 125,000.

More lightheartedness spoofs:

- \checkmark The AP reported the ocean off Florida's southern tip was like a "hot tub" and the "hottest seawater ever measured." Come now the fact-checkers to point out the example wasn't of the open ocean but a very shallow bay and not even a record high.
- \checkmark USA Today reported that the extreme heat was a top killer. "Every year since 2000, an average of 20,000 people have died from extreme heat in European cities," the outlet reported, citing a scientific paper. The fact checkers gracefully appear to taunt the author of the story to remind the writer that cold kills far more than heat.

Seems the spoofs are always a ten-year <u>President's Message</u> period of events to come. Numerous ominous predictions came about in the 80's, this time in 1989. A senior U.N. environmental official, Noel Brown, Director of the U. N. Environmental Program, heeds that entire nations could be wiped off the face of the earth if [fill in the blank] if [fill in the blank] is not reversed by the year 2000. Remember, is it is now the Fall of 2023.

On the other hand, here's some salient challenging facts worth noting about the aggressive push for electric vehicles from the big honcho himself at Toyota.

- "Most public chargers take 8-30 hours to charge and to meet federal emissions standards, 1.2 million chargers are needed by 2030."
- "More than **300 new** lithium, cobalt, nickel, and graphite mines [emphasis added] are needed to meet expected battery demand by 2035."
- ✓ "The amount of raw materials in one long-range battery electric vehicle could instead be used to make 90 hybrid electric vehicles."

As a result of publicly speaking out, merely to point out the challenges to manufacturing and mining all this stuff, one progressive investment behemoth fund, from a very large state with a large population, somewhere on the west coast, has called for the ouster of Tovota's CEO.

A spoof or a salient fact – they both legal experts in steady employment..." can't be right at the same time.

Trust you are able to attend the upcoming luncheon where our speaker will be giving some facts on ways to be your title attorney's favorite Landman. AAPL will be giving one (1) continuous education credit for attending and that is a fact.



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Change is inevitable, history provokes us to move forward. The intersection of sustainability and innovation is not just where the energy sector is sitting, it's also where this resilient little chapter of the American Association of Professional Landmen sits.

bounds forward..."

The conversations of the board as of late have been centered around innovation, change and technology. Our foundation is sturdy, our volunteers eager. Yet, we too struggle with moving forward, it is with great awareness we acknowledge standing still is not an option. Our logo change is evidence of this awareness. While deciding on a new logo, there was heart-felt discussion as to whether we include an oil pump (a long-standing image) in our logo or remove it. We conceded keeping two logos, one with and one without the oil pump. We have only used the logo without the oil pump but having that logo with the oil pump reassures us that we landmen are not extinct.

In fact, we know we are not on the verge of extinction, we are simply going through a transformation. Referring to the same **Override** article, our past president Joe Munsey, reminded us that we are, "not beholden to skill sets that are non-transferrable to the green energy business...our land background provides cross-over opportunities which will keep professional landmen and

It is LAAPL's mission to provide educational scheduling that broadens the scope of each LAAPL member. Each member's skill set is of value in this new technological driven energy state. If you were present at the September meeting last year, you learned how bitcoin data is being stored in servers located on oil producing property. Those leases for the servers were inked by land professionals. November attendees learned that hydrogen can fuel an entire tract of homes, and that the land implications Presidents Message continued on page 4

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The Override is, and has been Edited by Joe Munsey, RPL and Published by Randall Taylor, RPL, since September of 2006.

2023–2024 Officers & Board of Directors

President Sarah Downs, Esq., RPL Southern California Gas Company (213) 218 -5465

> Vice President Jeff Farquhar The Termo Company 562-279-1957

Past President Richard Maldonado Spectrum Land Services 714-568-1800

Secretary Marcia Carlisle The Termo Company 562-279-1957

Treasurer Jason Downs, CPL Chevron Pipeline & Power 310-616-6985

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Director Randall Taylor, RPL Taylor Land Service Inc. 949-215-0601

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> Education Chair John R. "JR" Billeaud, RPL CAL-NRG 805-336-5422

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Golf Chair Jason Downs, CPL Chevron Pipeline & Power 310-616-6985

Nominations Chair Joseph D. Munsey, RPL Southern California Gas Company 949-361-8036

Hospitality/Social Media Chair Lara Boyko, J.D. Land & ROW North America 310-920-5675

Chapter Board Meeting

Marcia Carlisle The Termo Company LAAPL Secretary

There was an LAAPL Chapter meeting on May 18, 2023. Chapter business meeting followed the SoCalGas Hydrogen Home Tour. The topics discussed at the meeting were:

- As there were no multiple nominees for any of the offices, A Resolution allowing for open voting by acclamation was passed.
- A Resolution was passed to waive publication of nominees in the March 15th, 2023, issue of *The Override*. Names of nominees were published instead in the May 2023 Override issue.
- Joe Munsey, RPL, held the election for the slate of Officers for 2023-2024. The nominees as published in the May 2023 *Override* issue were presented. There were no additional nominations from the floor. Therefore, the published list of nominees was elected as follows:

OFFICER	NOMINEE
Vice President	Jeff Farquhar, Senior Land Manager The Termo Company
Treasurer	Jason Downs, CPL, Senior Land Representative Chevron Pipeline & Power
Secretary	Marcia Carlisle, Senior Landman The Termo Company
LAAPL Director	John J. Harris, Esq., Partner Casso & Sparks, LLP
LAAPL Director	Randall Taylor, RPL, President Taylor Land Service Inc

We encourage all members to attend our LAAPL Board Meetings which are typically held in the same room as the luncheon immediately after the meetings are adjourned.

LAAPL Wins!

AAPL returned the Best Newsletter Award [small chapter association category] back to its rightful birthright owner, the Los Angeles Association of Professional Landmen, at AAPL's Annual Meeting in Huntington Beach. The trophy was delivered into the hands of Randall Taylor, RPL, of Taylor Land Service, Inc., Co-chair of the Publication/Newsletter. LAAPL is grateful for Randall's laborious efforts and talents throughout the years publishing this fine communication tool.

Scheduled LAAPL Luncheon Topics and Dates

September 21, 2023 "Top 10 Ways to be Your Title Attorney's Favorite Landman" Kathryn Chandler, Esq.

September Wednesday 27, 2023 – Friday, Sep. 29 2023 West Coast Landmen's Institute



Presidents Message producing of continued from page 2 and transporting hydrogen is to be acknowledged and solved. Land professionals are needed to solve these problems. We are by trait, solution driven analysts (add that to your Linkedin header for the algorithm). If you have been critical of the present state of Energy- you've come to the right place. This year is going to be filled with cultivating moments that further our member's perspective. We invite you to come (in person) enjoy the atmosphere and community. All are welcome here.



ALLISON S. FOSTER RL NOTARY PUBLIC





Randall Taylor, RPL Petroleum Landman

Taylor Land Service, Inc. 18 Halcyon Lane Aliso Viejo, CA 92656-6211 949-215-0601 randall@taylorlandservice.com



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Rick Peace, President AAPL Director 2009–2015 | API | BAPL Officer 1990–2014 | CIPA President's Circle DAPL | HAPL | LAAPL | SPE | SJGS | IRWA | WSPA

Chapter President Announces Committee Chairs

Our newly elected Chapter President, Sarah Downs, Esq., RPL, Research Attorney, Southern California Gas Company, announces her Committee Chairs for the 2023 – 2024 term. The Los Angeles Association of Professional Landmen will be greatly served by the following members:

Legal Counsel	Sarah Downs
Legal Coulisei	Research Attorney, Environmental Litigation
	Southern California Gas Company
	(213) 218-5465
	sedowns@socalgas.com
Membership Chair	Linda Thibodeaux Barras, SR/WA, BBA
Weinbersnip Chan	Abstractor / Real Property Services
	(562) 280-8191
	Linthib1965llc@gmail.com
Website Chair	Chip Hoover, Independent
	(310) 795-7300 – Cell
	chiphoover@hotmail.com
Hospitality/Social Media Chair	Lara Boyko, J.D.
	Principal Consultant, Land & ROW North America
	(310) 920-5675
	lara.boyko@erm.com
Education Chair	John R. "JR" Billeaud, RPL,
	Land Manager, CAL-NRG
	john.billeaud@CalNRG.com
Publishing/Newsletter Chair	Randall Taylor, RPL, President
6	Taylor Land Service
	(949) 495-4372
	randall@taylorlandservice.com
	Joseph D. Munsey, RPL, Senior Land Advisor
	Southern California Gas Company
	(949) 361-8036
	jmunsey@socalgas.com
AAPL Region VIII Director	Jason Downs, CPL
	Senior Land Representative
	Chevron Pipeline & Power
	(310) 669-4005
	jasondowns@chevron.com
Legislative Chair	Mike Flores, President
0	Championship Strategies, Inc.
	(310) 990-8657
	mike@championshipstrategies.com
Mickelson Golf Classic Chair	Jason Downs,CPL
Mickelson Golf Classic Chair	
	Senior Land Representative Chevron Pipeline & Power
	(310) 669-4005
	jasondowns@chevron.com
Nominations Chair	Joseph D. Munsey, RPL
	Senior Land Advisor
	Southern California Gas Company
	(949) 361-8036
	jmunsey@socalgas.com

AAPL Director Report



AAPL's Mission Statement

Our mission is to promote the highest standards and ethics of performance for all land professionals and to encourage sound stewardship of all energy and mineral resources.

AAPL Director Report Quarterly Board Meeting 9/10/23: Coral Gables, FL

Name: <u>Jason Downs, CPL</u>

Company: Chevron Pipeline & Power

Email: jasondowns@chevron.com

Local Association Name: Los Angeles Association of Professional Landmen



60	
35	

Total Local Association Members

5 Total Active ("Land Professionals") AAPL Members within your Association

Association projects/activities: SCHEDULED LAAPL LUNCHEON & EVENT DATES:

- West Coast Land Institute (WCLI) September 27-29, Vespera Resort on Pismo Beach. See sign up information below.
- Luncheons:
 - September 21st, 2023, Speaker TBD, located at The Grand in Long Beach
 - Mickelson Golf Classic Oct/Nov. Date TBD Location Old Ranch Seal Beach
 - November 16th, 2023, Speaker TBD, located at The Grand in Long Beach
 - January 25th, 2024, Joint Luncheon with Geologist, located at The Grand in Long Beach

Association requests/concerns: N/A

Local news including business activity:

- Tight market for Independent Landman in the LA Basin with folks going renewable, utility, tech, or in-house roles with a small pool of Landmen available. Most contract landmen are working site specific projects and/or quasi-in-house roles. Broker rate \$60-\$125 an hour with seasoned Landmen charging a premium. Remainder of Landmen hold in-house positions. Seasoned Independents have recently received various full-time employment from Renewables, Utilities, Tech, and Upstream/Midstream Oil & Gas Companies.
- California Independent Petroleum Association <u>www.cipa.org</u> contact Sean Wallentine at <u>sean@cipa.org</u> for news and up to date information.
- Western States Petroleum Association <u>www.wspa.org</u> contact Kevin Slagle at <u>kslagle@wspa.org</u>
- <u>www.laapl.com</u> (Award winning Override Newsletter)
- <u>www.bakersfieldlandmen.org</u>
- <u>www.conservation.ca.gov</u>

Bylaws & Policy suggestions: N/A

AAPL Director Report - continued

2023-24 LOS ANGELES ASSOCIATION OFFICERS AND DIRECTORS

PRESIDENT

Sarah Downs, Esq., RPL	Attorney, Southern California Gas Company				
PAST PRESIDENT Richard Maldonado	Managing Partner, Spectrum Land Services				
VICE PRESIDENT					
Jeff Farquhar	Senior Land Manager, The Termo Company				
SECRETARY					
Marcia Carlisle	Senior Landman, The Termo Company				
TREASURER					
Jason Downs, CPL	Senior Land Representative, Chevron Pipeline & Power				
DIRECTORS (2)					
John J. Harris, Esq.	Partner, Casso & Sparks, LLP				
Randall Taylor, RPL	Taylor Land Service				

Chapter Committee Chairs

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Legal Counsel	Sarah Downs Esq., RPL Research Attorney, Environmental Litigation Southern California Gas Company (213) 218-5465 sedowns@socalgas.com
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Hospitality/Social Media Chair	Lara Boyko, J.D. Principal Consultant, Land & ROW North America (310) 920-5675 lara.boyko@erm.com
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Publishing/Newsletter Chair	Randall Taylor, RPL, President Taylor Land Service (949) 495-4372 randall@taylorlandservice.com Joseph D. Munsey, RPL, Senior Land Advisor Southern California Gas Company (949) 361-8036 jmunsey@socalgas.com
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Mickelson Golf Classic Chair	Jason Downs, CPL Senior Land Representative Chevron Pipeline & Power (310) 669-4005 jasondowns@chevron.com
Nominations Chair	Joseph D. Munsey, RPL Senior Land Advisor Southern California Gas Company (949) 361-8036 jmunsey@socalgas.com

LAAPL 2023 Mickelson Golf Classic



2023 MICKELSON GOLF CLASSIC

Jason Downs, CPL, Co-Chair Rich Maldonado, Co-Chair Golf Tournament Committee

2023 Mickelson Golf Classic Update

Expect more info soon.

Proposed Date: Thursday November 9, 2023 Proposed Locations: Old Ranch, Coyote Hills, Lakewood, or Palos Verdes Estimated Number of Golfers: 20-25

We want to give Old Ranch a few weeks to post availability as that course is superior. If not available, the LAPPL Board can have a meeting to choose from Coyote, Lakewood, or Palos Verdes.

All proceeds, less expenses, will be donated to the R.M. Pyles Boys Camp. Established in 1949 by Mr. Pyles, a Huntington Beach oilman, R. M. Pyles Boys Camp is dedicated to the task of building healthier and happier generations of productive young Americans, firmly endowed with the ideals and principles of this Nation. Pyles Boys Camp gives a new confidence in life through a high quality and challenging High Sierra wilderness camp experience. R.M. Pyles Boys Camp continues to follow up with year-round programs to support and reinforce values learned at camp.





Sources of "Hidden" Energy to Mine and Process 500,000 Pounds per EV Battery

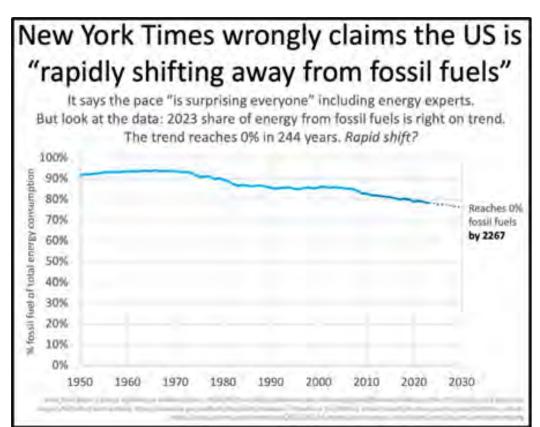
While there are dozens of variations, a typical EV battery weighs about 1,000 pounds and contains about 30 pounds of lithium, 60 pounds of cobalt, 130 pounds of nickel, 190 pounds of graphite, 90 pounds of copper,[a] and about 400 pounds of steel, aluminum,[b] and various plastic components.[c]

The ore grades for each mineral dictate the quantities of rock that must be dug up and processed to produce minerals needed to fabricate one battery; thus:

- Lithium brines contain @ ~0.14% lithium, so that entails ~20,000 pounds of brines to yield 30 pounds of pure lithium[d]
- Cobalt @ ~0.1% ore grades means ~60,000 pounds of ore dug up per battery[e]
- Nickel @ ~1.3% grade, means ~10,000 pounds of ore[f]
- Graphite @ ~10% leads to 2,000 pounds of ore[g]
- Copper @ ~0.6% yields about 12,000 pounds of ore[h]

These five elements total ~100,000 pounds of ore to fabricate one EV battery. To properly account for all the earth moved, there's also the overburden, the materials first dug up to get to the ore; depending on ore type and location, it averages three to seven tons of overburden removed to access each ton of ore,[i] thus ~500,000 pounds total. The exact number varies for different batteries and mines. Note that this doesn't include large quantities of chemicals to process and refine the ores, or the mining/refining for the other 400 pounds of battery minerals used (e.g., steel, aluminum).

Source: Mark P. Mills, "Mines, Minerals, and 'Green Energy': A Reality Check," Manhattan Institute, July 2020



LAAPL Education Report

September – December 2023

John R. "JR" Billeaud, RPL, Land Manager, California Natural Resources Group, LLC Education Chair

September

Event	Dates	Location	Speakers	Credits	Cost
LAAPL September	September 21,	The Grand, Long	Kathryn Chandler	1 CEU	
Luncheon	2023	Beach, CA	(Top 10 Ways to be		
			your Title Attorney's		
			Favorite Landman)		
Into the Digital Pipeline:	September 27,	Live Webinar	Ben Holliday	1 CEU	-AAPL Members: \$65
Intersection of Natural	2023				-Non-AAPL Members: \$110
Gas Flaring and					-Students: Free
Cryptocurrency Mining					
West Coast Land Institute	September 27-	Vespera Resort,	Various	9 CEU; 1	-LAAPL/BAPL Members: \$275
	29, 2023	Pismo Beach,		Ethics	-Non-Members: \$325
		CA		(AAPL	-Member Independents: \$100
				Approved)	-Non-Member Independents: \$150

October

Event	Dates	Location	Speakers	Credits	Cost
Surface Use and Access	October 3, 2023	Live Webinar	George R.	5 CEU; 1 CEU	Early Bird Price (thru 9/19/23):
			Shultz, CPL	Ethics	-AAPL members: \$220
					-Non-AAPL Members: \$375
					-Students: Free
					Regular Price (after 9/19/23):
					-AAPL members: \$275
					-Non-AAPL members: \$470
					-Students: Free
Recent Developments in	October 4, 2023	Live Webinar	Robert 'Eli'	1 CEU	-AAPL Members: \$65
Drill Allocation Wells			Kiefaber, JD		-Non-AAPL Members: \$110
					-Students: Free
AAPL RPL/CPL	October 11-13,	AAPL Office - 800	Various	RPL: 6 CEU; 1	Registration closed - max
Certification Exam	2023	Fournier St., Ft.		CEU Ethics	number of applicants reached.
Review		Worth, TX 76102			
				CPL: 18 CEU; 1	
				CEU Ethics	
50th Annual Denver Land	October 12,	Denver, CO	Various	7.5 CEU	-AAPL Members: \$250
Institute	2023				-Non-AAPL Members: \$350
					-Students: Free
Solar Lease Fundamentals	October 17,	Live Webinar	Phillip A.	3 CEU	Early Bird Price (thru 10/2/23):
	2023		Guerra, JD, CPL		-AAPL members: \$132
					-Non-AAPL Members: \$248
					-Students: Free



LAAPL Education Report - continued

					Regular Price (after 10/2/23): -AAPL members: \$165
					-Non-AAPL members: \$310
					-Students: Free
2023 Women in Energy	October 24,	Houston, TX	Various	5 CEU; 1 CEU	-AAPL Members: \$399
Institute - Championing	2023			Ethics	-Non-AAPL Members: \$499
the Industry					-Students: Free

November

Event	Dates	Location	Speakers	Credits	Cost
LAAPL November Luncheon	November 16, 2023	The Grand, Long Beach, CA	TBD	1 CEU	

December

Event	Dates	Location	Speakers	Credits	Cost
AAPL RPL/CPL Certification	December 6-8,	Houston, TX	Various	RPL: 6 CEU;	Early Bird Price (thru 11/21/23):
Exam Review - Houston, TX	2023			1 CEU	-AAPL members: \$400
				Ethics	-Non-AAPL Members: \$480
					-Students: Free
				CPL: 18	Regular Price (after 11/21/23):
				CEU; 1 CEU	-AAPL members: \$500
				Ethics	-Non-AAPL members: \$600
					-Students: Free



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Legislative Update

BY MIKE FLORES Championship Strategies, Inc



From The Office Of The Governor

Governor Newsom Announces New Strategy to Develop a Hydrogen Economy of the Future

Aug 08, 2023

SACRAMENTO – Governor Gavin Newsom has directed the Governor's Office of Business and Economic Development (GO-Biz) to develop California's Hydrogen Market Development Strategy, employing an all-of-government approach to building up California's clean, renewable hydrogen market. It will closely resemble

the Zero-Emission Vehicle Market Development Strategy to help California collectively move forward and deliver zeroemission benefits to all Californians.

"California is all in on clean, renewable hydrogen – an essential aspect of how we'll power our future and cut pollution," said Governor Newsom. "This strategy will lay out the pathway for building a robust hydrogen market to help us fully embrace this source of clean energy."

WHY IT'S NEEDED:

• Expanding the market for clean, renewable hydrogen is key to achieving California's climate goals – especially for a clean electric grid, net-zero carbon emissions, and drastically cutting air pollution.

• California is currently competing to become a federally funded Hydrogen Hub, a program that will leverage \$8 billion from the Bipartisan Infrastructure Law to establish at least four Hydrogen Hubs across the United States.

WHAT IT WILL DO:

• Create a market development strategy that is focused on leveraging hydrogen to accelerate clean energy deployment and decarbonizing our transportation and industrial sectors;

• Build on our 2022 Scoping Plan while leveraging the upcoming SB 1075 hydrogen report and ARCHES' cross sector, multi-stakeholder hydrogen market white papers;

• Developed in consultation with state agencies – including the California Air Resources Board, the California Energy Commission, and the California Public Utilities Commission – while clearly defining agencies' roles and responsibilities;

• Identify shared strategies to deliver projects, which may include new financing models, permitting modifications, and procurement initiatives;

• Engage relevant stakeholders, including local communities, to advance equity and deliver environmental and economic benefits;

• Ensure state agencies and partners continue to pull in a shared direction to accelerate the use of renewable energy throughout our economy and increase resilience and reliability of our energy system.

SoCalGas issues statement on Governor Gavin Newsom strategy to develop a hydrogen economy of the future in California.

Maryam Brown, SoCalGas President said: SoCalGas applauds Governor Newsom's announcement today and his strategy to develop a robust hydrogen market.

"Clean, renewable hydrogen will play a critical role in reaching California's ambitious climate goals. California leads the nation in clean energy innovation, and SoCalGas will continue to support those efforts by leveraging its skilled workforce and infrastructure to help the state achieve net-zero emissions."

FROM CAL MATTERS: Three Fossil Fuel Plants Will Stand by To Provide Emergency Power for Three More Years Despite California's Mandate To Switch To Clean Energy by 2045.

California officials agreed to extend operations at three natural gas plants on the Southern California coast in an effort to shore up California's straining power grid and avoid rolling blackouts.

The controversial and unanimous vote that keeps the plants open came from the State Water Resources Control Board, which oversees the phaseout of natural gas facilities that suck in seawater and kill marine life.

Legislative Report continued from page 12 Seawater-cooled units at three power plants in Long Beach, Huntington Beach and Oxnard will be kept in reserve for three more years to feed energy into the state's grid during power emergencies,

such as the 10-day heatwave last August and September that led to statewide power alerts. The plants had been slated to cease operations of those units by the end of 2020, but received a three-year extension amid rolling blackouts that summer.

Now that extension has been extended again — through 2026. A fourth, the Scattergood Generating Station in Playa Del Rey, will receive a five-year extension to fill regional supply gaps though 2029.

"The decision about the fossil fuel plants comes despite the state's mandate for 100% renewable and zero-carbon electricity by 2045.

Natural gas plants are a large source of greenhouse gases, which warm the planet, toxic gases like ammonia and formaldehyde, and nitrogen oxides, which contribute to Southern California's extreme smog. Nationally, natural gas plants account for about a third of all carbon emissions from energy production.

California Gov. Gavin Newsom last year called for state agencies such as the Department of Water Resources to prop up the grid — including with fossil fuels, which drew the ire of environmentalists and nearby communities.

The state agreed to pay the plants' operating companies about \$1.2 billion from 2024 through the end of 2026 to stand by during energy events, such as heat waves.

"These resources would only be turned on to address extreme events or for maintenance runs" at the direction of the state's grid operator, said Delphine Hou, deputy director of the Department of Water Resources, at a meeting of the California Energy Commission last week.

EDITORIAL FROM THE BAKERSFIELD CALIFORNIAN

California imports 60% of the oil it consumes every single day from foreign countries. This crude oil comes via ships and is produced by countries such as Iraq, Saudi Arabia and Ecuador, countries hardly aligned with the California state government's values or environmental regulations. California has no control over how much oil is produced in the world, only how much it consumes.

California's dependence on offshore imports due to a lack of interstate pipelines poses a security risk if the oil Californians depend on every day is interrupted. Europe's quick embrace of more oil and gas projects since the Ukraine conflict has shown the importance of continued domestic investment in oil and gas to national security.

Through setbacks (SB 1137), CEQA delays, a fracking ban, and increasing regulations, California is pursuing its stated goal to end oil and gas extraction by 2045. However, a permit denied in California does not prevent a well from being drilled, it relocates the well from Bakersfield to Baghdad. California has no control over how many oil wells are drilled; only how many wells it can regulate.

Drilling more wells in California has environmental benefits by virtue of following the strictest regulations in the world. Local wells harvest resources from well-developed fields utilizing existing infrastructure. A lot more goes into producing crude oil than a well; the associated facilities exist in California and can be reliably utilized to provide sustainable energy no matter the international climate.

There are also significant economic benefits for local economies and the opportunity to demonstrate pioneering lower carbon energy technologies. Allowing investment in the traditional oil and gas business will help places like Kern County that depend on the jobs and tax revenue to grow the hydrogen, carbon capture, and geothermal businesses that can impact oil consumption. The leadership of California oil companies in carbon capture and storage is an early example. Prematurely limiting supply before demand sends money to hostile regimes and harms the California consumer.

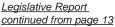
Reducing GHG emissions is a global issue and California plays a small part (less than 1% of global emissions). There is only one climate and in order to be a climate leader, California must take ownership to ensure the responsible production of the resources its residents consume.

Californians deserve responsibly sourced crude oil produced by Californians for Californians — oil pumped and processed following the strongest environmental regulations in the world.

Matthew Pelz, born and raised in Bakersfield, is an engineer and a recent graduate of

UCLA. FROM ASSOCIATED PRESS: California High Court Says County Can't Enforce Oil Well Ban as State Debates Future of Fossil Fuels

The California Supreme Court has ruled that Monterey County cannot enforce a voter-approved ban on Luncheon Speaker continued on page 14



new oil and gas wells, a decision that comes amid an ongoing battle over how the state should address the health and climate impacts of fossil fuel extraction.

The ruling comes a day after environmental advocates announced a plan to try to enshrine a state law banning new gas and oil wells near homes, schools and hospitals as the oil industry vies for voters to overturn it. Voters could face dueling measures on the November 2024 ballot.

The court's decision dealt a blow to local advocates, who have been fighting for years to change the practices of the oil industry. Voters in the county first approved the ban in 2016, shortly after which Chevron sued. The state Supreme Court said the state, not the county, has the authority to regulate certain methods of oil production that would have been banned by the measure.



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Guest Article

How to Successfully Negotiate a Lease with the Mineral Owner

By Alyce Boudreaux Hoge, Esq.

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Alyce Boudreaux Hoge is an attorney licensed in Texas and Louisiana. She has practiced energy and mineral law for the past 30+ years. The founder of Land Training LLC, she also teaches the Professional Land Management and Division Order Certificate Programs at Midland College in Midland, Texas. Previously, she has taught PLM programs at the University of Texas (PETEX) and the University of Houston. A native of Louisiana, Alyce is fond of saying she gives "legal advice with Cajun spice."

Ed Comments: A nice primer for those entering the professional land business and a memory jogger to the experienced professional landman how it's "done" but we overlooked putting pencil to paper.

As a landman, negotiating an oil and gas lease with a mineral owner requires a strategic approach and a thorough understanding of the industry. Here are some key steps to successfully navigate this process:

1. Research and Preparation:

- Begin by conducting extensive research on the mineral owner, their property, and any existing leases in the area.
- Familiarize yourself with the current market conditions, including oil and gas prices, drilling activity, and regulatory requirements.
- Understand the specific terms and provisions commonly included in oil and gas leases.

2. Establish Communication:

- Initiate contact with the mineral owner in a professional and respectful manner.
- Clearly communicate your intentions and objectives, emphasizing the potential benefits of entering into a lease agreement.

3. Build Rapport:

- Take the time to build a positive relationship with the mineral owner. Show genuine interest in their concerns and goals.
- Address any questions or concerns they may have, providing accurate and transparent information.

4. Understand the Mineral Owner's Objectives:

- Determine the mineral owner's primary objectives, such as financial gain, environmental considerations, or long-term land preservation.
- Tailor your negotiation strategy to align with their goals, emphasizing how the proposed lease agreement can meet their needs.

5. Offer Competitive Terms:

- Present a fair and competitive offer that reflects the current market conditions and the value of the mineral rights.
- Consider offering attractive bonus payments, royalty rates, and lease durations to incentivize the mineral owner. Remember, mineral owners (neighbors, relatives) talk to each other, and a low-ball offer will likely reflect poorly.

6. Flexibility and Compromise:

- Be open to negotiation and willing to make reasonable compromises to reach a mutually beneficial agreement.
- Address any concerns raised by the mineral owner and explore potential solutions together.

7. Seek Legal Advice:

- Encourage the mineral owner to seek independent legal counsel to review the lease agreement.
- Offer to clarify any legal terms or provisions to ensure transparency and fairness.

<u>Guest Article</u>

- <u>continued from page 16</u>**8.** Document the Agreement:
 - Once the negotiation is successful, ensure that all agreed-upon terms are documented in a legally binding lease agreement. Make sure that the lease analyst has all the information they need.
 - Clearly outline the rights, obligations, and responsibilities of both parties to avoid any future disputes.

Remember, negotiating an oil and gas lease requires patience, effective communication, and a willingness to find common ground. By following these steps and maintaining a respectful approach, you can increase the likelihood of a successful negotiation with a mineral owner.

Ms. Hoge can be reached at ahoge@landtraining.net.



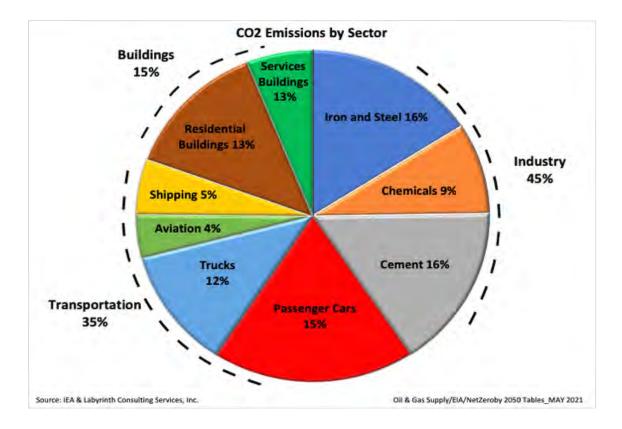


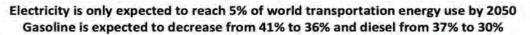
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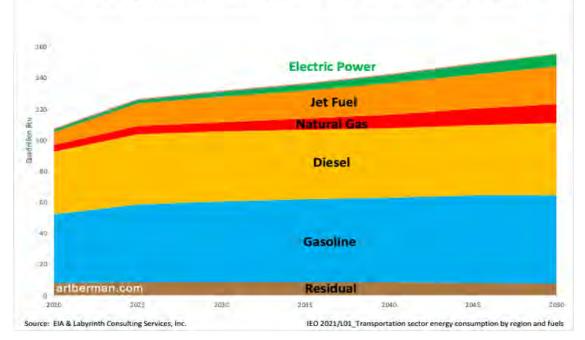
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Interesting Charts

Provided to *The Override* by James R. Halloran who can reached by contacting him at <u>jameshalloran8969@gmail.com</u>. Mr. Halloran provides daily [almost] insight on the energy industry.

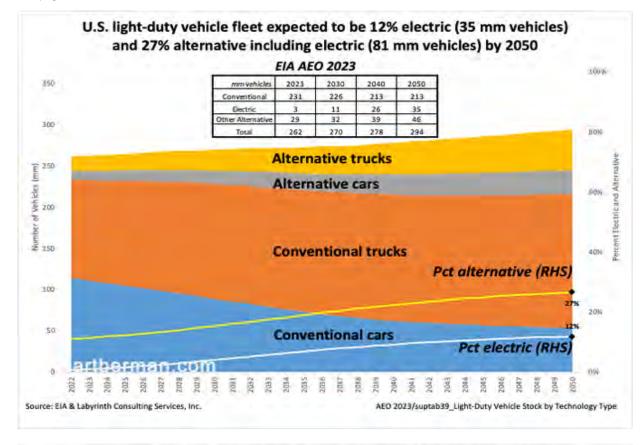




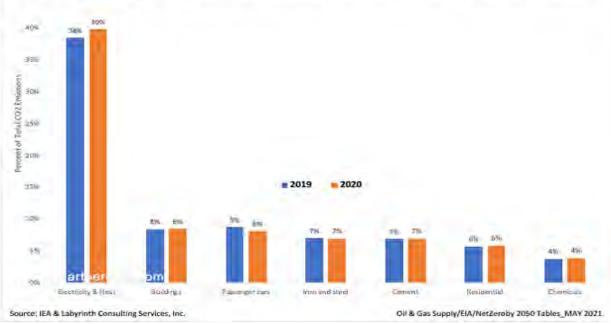


Interesting Charts - continued

<u>Charts</u> continued from page 18



Passenger cars are responsible for only about 8% of global CO₂ emissions Electricity and heat is the main contributor Buildings, iron and steel, cement, and residential sources are similar to passenger vehicles



Case of the Month - Energy



Massachusetts Court Rejects Endangered Species Act Challenge to Offshore Wind Project

> Edward Roggenkamp, Esq., Partner Law Firm of Nossaman LLP Republished With Permission All Rights Reserved

Mr. Roggenkamp practices out of Nossaman's Washington, DC offices. He is a seasoned litigator focused on resolving complex environmental matters and can be reached at eroggenkamp@nossaman.com.

On May 17, 2023, the federal District Court for the District of Massachusetts granted summary judgment in favor of the United States Bureau of Ocean Energy Management (BOEM) and Vineyard Wind and denied summary judgment to the plaintiffs in the case of Nantucket Residents Against Turbines v. U.S. Bureau of Ocean Energy Management, 21-cv-11390 (Talwani, J.). This is the first federal court decision upholding, on the merits, the federal government's approval of a commercial-scale offshore wind project. There are three other cases pending that also seek to block the construction of the Vineyard Wind project offshore of Massachusetts.

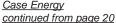
Vineyard Wind's proposed offshore wind project has been the subject of numerous environmental reviews and approvals pursuant to the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA) and other statutes that were not the subject of this lawsuit. The final NEPA environmental impact statement (EIS), which reviewed the impacts associated with Vineyard Wind's Construction and Operations Plan (COP) for the project, was posted on March 12, 2021. That followed a lengthy review by BOEM, which involved numerous updates to the COP submitted by Vineyard Wind, and a supplemental EIS that considered cumulative impacts associated with offshore wind development in other areas.

BOEM also consulted with the National Marine Fisheries Service (NMFS) pursuant to Section 7 of the ESA. That consultation considered the effects of the COP on ESA-listed species, including the endangered North Atlantic right whale (Eubalaena glacialis), and the critical habitat for various species in the area of the proposed project. NMFS originally issued a Biological Opinion in 2020, concluding that the proposed action "may adversely affect but is not likely to jeopardize the continued existence" of the North Atlantic right whale and other species. In May of 2021, BOEM re-initiated consultation with NMFS to consider additional monitoring surveys and new information; NMFS issued a new Biological Opinion in October of that year. The re-issued Biological Opinion concluded that the proposed wind farm would not jeopardize the continued existence of the right whale. It also included an incidental take statement allowing a limited number of takings of the right whale, at a level that may disturb the whales' behavior patterns but was not expected to cause serious injury or mortality, and imposing mitigation measures designed to reduce the projected number of takings. In June of 2021, NMFS also issued an incidental harassment authorization to Vineyard Wind, which allowed Vineyard Wind to take marine mammals (including the right whale) during construction of the proposed wind farm. The final approvals for Vineyard Wind's project include numerous mitigation measures pertaining to the North Atlantic right whale and other ESA-listed animals, including restrictions on pile-driving, use of protected species observers and passive acoustic monitoring, and vessel speed restrictions.

The plaintiffs in the case – Nantucket Residents Against Turbines, known as "ACK RATs" as a nod to the Federal Aviation Administration's code for the Nantucket airport, and Vallorie Oliver, a founding member of ACK RATS – challenged the 2021 Biological Opinion, alleging that it failed to adequately consider the Vineyard Wind project's impact on the North Atlantic right whale, failed to utilize the "best available" science with respect to the whale as required by the ESA, and failed to ensure that the project would not jeopardize the continued existence of the whale. They also alleged that BOEM violated NEPA by failing to take a "hard look" at the environmental impacts of the project, as to the right whales and as to air quality impacts from vessel trips associated with the project.

The Court found that Oliver (and through her, ACK RATs) had demonstrated standing – although "marginally" – but only as to their claims relating to the North Atlantic right whale, and not their concern about the project's potential effects on air quality. The Court then considered, and rejected, their claims about harm to the right whale on the merits.

Those claims rested largely on the contention that the 2021 Biological Opinion failed to adequately address five studies on the right whale between 2019 and 2021, and therefore failed to rely on the "best scientific and commercial data available." However, the Court reviewed the Biological Opinion and determined that NMFS considered the studies cited by the plaintiffs, and either concluded that the studies were less reliable than alternative evidence, or <u>Case - Energy</u> <u>continued on page 21</u>



did not change the agency's ultimate conclusion that the Vineyard Wind project would not jeopardize

the continued existence of the whale. It therefore deferred to NMFS' evaluation of the data, and NMFS' disagreement with the plaintiffs' contrary interpretation of the same data. Similarly, the Court rejected the plaintiffs' claim that NMFS and BOEM failed to adequately consider the impact of vessel strikes, pile driving noise, and other aspects of the project on right whales.

The Court therefore rejected the plaintiff's ESA claims (and their NEPA claims, which also relied on impacts to the North Atlantic right whale) and granted summary judgment in favor of BOEM, NMFS and Vineyard Wind.



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Guest Article

Lane-Wells 100,000th Perforation Montebello Oil Field

Established in 1932, the Lane-Wells oilfield service company created powerful perforating guns.

Fifteen years after its first oil well perforation job, Lane-Wells Company returned to the same well near Montebello, California, to perform its 100,000th perforation. The publicity event of June 18, 1948, was a return to Union Oil Company's La Merced No. 17 well.

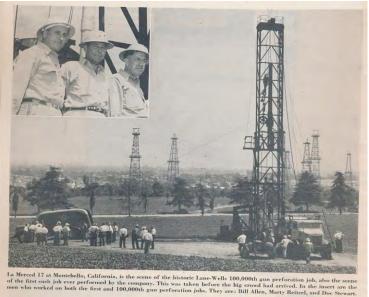
The gathering of executives at the historic well celebrated a significant leap in petroleum production technology. The combined inventiveness of the two oilfield service companies had accomplished much in a short time, "so it was a colorful ceremony," reported a trade magazine.

Officials from both companies and invited guests gathered to witness the repeat performance of

the company's early perforating technology, noted Petroleum Engineer in its July 1948 issue. Among them were "several wellknown oilmen who had also been present on the first occasion."

Walter Wells, chairman of the board for Lane-Wells, was present for both events. The article reported he was more anxious at the first, which had been an experiment to test his company's new perforating gun. In 1930, Wells and another enterprising oilfield tool salesman, Bill Lane, came up with a practical way of using guns downhole.

The two men envisioned a tool which would shoot steel bullets through casing and into the formation. They would create a multipleshot perforator that fired bullets individually by electrical detonation. After many test firings, commercial success came at the Union Oil Company La Merced well.



As production technologies evolved after World War II, Lane-Wells developed a downhole gun with the explosive energy to cut through casing. Above, one of the articles preserved in a family scrapbook, courtesy Connie Jones Pillsbury, Atascadero, California.

By late 1935, Lane-Wells had established a fleet of trucks as the company grew into a provider of well-perforations — a key oilfield service for enhancing production.

"Bill Lane and Walt Wells worked long hours at a time, establishing their perforating gun business," explained Susan Wells in a 2007 book. The men designed tools that would better help the oil industry during the Great Depression, she noted. "It was a period of high drilling costs, and the demand for oil was on the rise. Making this scenario worse was the fact that the cost of oil was relatively low."

What was needed was a high-powered gun for breaking through casing, cement and into formations. An oilfield worker, Sidney Mims, had patented a similar technical tool for this purpose, but could not get it to work as well as it could. Lane and Wells purchased the patent and refined the gun.

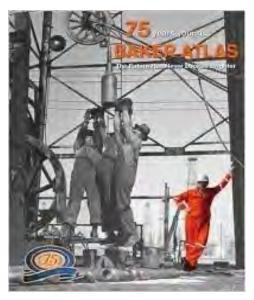
<u>Montebello</u> <u>continued from page 22</u>

Established in Los Angeles in 1932, the oilfield service company developed a remotely controlled 128-shot gun perforator. "Lane and Wells publicly used the reengineered shotgun perforator they bought from Mims on Union Oil's oil well La Merced No. 17," Susan Wells noted in her 2007 book celebrating the 75th anniversary of Baker-Atlas.

"There wasn't any production from this oil well until the shotgun perforator was used, but when used, the well-produced more oil than ever before," she explained.

The successful application attracted many other oil companies to Lane-Wells, which decided to conduct its 100,000th perforation almost 16 years later at the very same California oil well. The continued success led to new partnerships beginning in the 1950s.

A Lane-Wells merger with Dresser Industries was finalized in March 1956, and another corporate merger arrived in 1968 with Pan Geo Atlas Corporation, forming the service industry giant Dresser Atlas.



Lane-Wells became Baker Atlas, which celebrated its 75 anniversary in 2007, and today is a division of Baker-Hughes

A 1987 joint venture with Litton Industries led to Western Atlas International, which became an independent company before becoming a division of Baker-Hughes in 1998 (Baker Atlas) providing well logging and perforating services. Dresser merged with Halliburton in 1998.

Preserving Petroleum History



Connie Jones Pillsbury of Atascadero, California, and the family of Walter T. Wells wanted to preserve rare Lane-Wells artifacts. She contacted the American Oil & Gas Historical Society for help finding a home for their original commemorative album, pressclippings and guest book from the June 18, 1948, "Lane-Wells 100,000th Gun Perforating Job" event of at Montebello, California, site of a Union Oil Company La Merced No. 17 well.

Pillsbury and the children of Dale G. Jones, the grandson of Walter T. Wells, contacted petroleum museums, libraries and archives (also see Oil & Gas Families).

Pillsbury accomplished her quest to preserve the petroleum history album of Walter T. Wells. Later, she emailed AOGHS that the

material became "safely archived at the USC Libraries Special Collections. Sue Luftschein is the Librarian. It's on Online Archive of California (OAC)." Details about the Lane-Wells collection — Gift of Connie Pillsbury, October 27, 2017 — can be accessed via the OAC website.

Title: Lane-Wells Company records Creators: Wells, Walter T. and Lane-Wells Company Identifier/Call Number: 7055 Physical Description: 1.5 Linear Feet 1 box Date (inclusive): 1939-1954

Montebello continued from page 23

The archive abstract also notes: "This small collection consists of a commemorative album celebrating the 100,000th Gun Perforating Job by the Lane-Wells Company of Los Angeles on June 18, 1948 and additional printed ephemera, 1939-1954, created and collected by Walter T. Wells, co-founder and Chairman of the Board of the Lane-Wells Company."

Pillsbury had sought a museum or archive home for her rare oil patch artifact, which came from an event attended by many from the Los Angeles oil industry.

"The professionally prepared book has all of the attendees signatures, photographs and articles on the event from *TIME, The Oil and Gas Journal, Fortnight, Oil Reporter, Drilling, The Petroleum Engineer, Oil, Petroleum World, California Oil World, Lane-Wells Magazine*, the L.A. Examiner, L.A. Daily News and L.A. Times, etc.," Pillsbury noted in 2017.

The book, now preserved at USC, "was given to my first husband, Dale G. Jones, Ph.D., grandson of Walter T. Wells, one of the founders of Lane-Wells," she added. "His children asked me to help find a suitable home for this book. I found you (the AOGHS website) through googling 'History of Lane-Wells Company."



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Case of the Month - Right of Way



A Lesson on Water Runoff and Inverse Condemnation Liability

Bradford Kuhn, Esq., Partner Law Firm of Nossaman LLP

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With all the recent storms in California, private property is bound to suffer impacts from storm water runoff, landslides, erosion and subsidence. Understanding whether the government bears responsibility for such damage is a complex and fact-specific analysis. However, a recent court of appeal decision, Shenson v. County of Contra Costa (2023 Cal. App. LEXIS 244), provides an excellent history on liability in these circumstances, and explains when natural watercourses, drainage improvements, and a public agency's approval of development can trigger inverse condemnation liability.

Background

Shenson involved a situation in which in the 1970s, the county approved maps for residential subdivisions, and required the developers to (i) make drainage improvements to collect and convey water from the subdivisions to an adjacent creek and (ii) dedicate drainage easements to the county. However, the county never accepted the offers of dedication for the drainage improvements, which remained in the ownership of the subdivision association. The county, nevertheless, continued to collect drainage fees from the homeowners for a future proposed flood protection project.

Two homeowners sued the county for inverse condemnation and parallel tort causes of action after the drainage improvements failed and resulted in serious erosion and subsidence damage. The owners claimed that the county assumed ownership and responsibility of the drainage improvements by requiring the subdivision developers to construct them and to offer to dedicate easements to the county to enable it to maintain them. The owners also argued that the county's collection of drainage fees from homeowners rendered it responsible for the drainage improvements constructed by the subdivision developers. The County asserted that it did not accept the offers to dedicate the easements and did not otherwise assume responsibility for maintaining the drainage improvements, and that it could not be liable for merely collecting fees for future improvements that, thus far, have not been constructed because of the unavailability of matching federal funds.

The trial court found no liability, concluding that, as a matter of law, a public entity must either own or exercise actual control over a waterway or drainage improvements to render them public works for which the public entity is responsible, and in this case, there was no such ownership or control. The owners appealed.

The Appeal

On appeal, the court provided some background principles of inverse condemnation liability as it pertains to subdivisions and drainage:

A public entity may be liable as a property owner when alterations or improvements to its own upstream property result in the discharge of an increased volume of or velocity of surface water in a natural watercourse causing damage to the property of a downstream owner. However, as with any upstream property owner, whether public or private, a government entity is only liable if, considering all of the circumstances, its conduct was unreasonable and the lower property owner acted reasonably.

A government entity may be liable in inverse condemnation where the increased volume or velocity of surface waters and resulting damage are caused by discharge of increased surface waters from public works or improvements on publicly owned land or if it has incorporated the watercourse or public improvements into a public drainage system.

The theory underlying inverse condemnation liability in these contexts is that a downstream owner may not be compelled to accept a disproportionate share of the burden of improvements undertaken for the benefit of the public at large. However, similar to a tort, the reasonableness of the government's conduct matters: the public entity will only be liable if it fails to use reasonably available, less injurious alternatives, and the downstream owner fails to take reasonable measures to protect its property.

With these principles in mind, the court went on to explain why there could be no inverse condemnation liability in this circumstance.

Requiring Construction of the Drainage System and an Offer of Dedication Did Not Convert Private Improvements into Public Works.

First, the court held that while the county imposed on the developer a condition requiring it to construct Case - RoW continued on page 27

<u>Case - RoW</u> <u>continued from page 26</u>

the drainage improvements, and required the developer to offer to dedicate easements for drainage

continued from page 26 purposes to the county, it was the subdivision developer that designed and built the improvements. Moreover, the county never accepted the offer of dedication, never maintained or repaired the drainage improvements, and therefore they did not constitute a public work. Approval of a subdivision map does not represent a sufficient level of government involvement to constitute a public use or improvement subjecting the public entity to inverse condemnation liability.

That the Drainage Improvements Serve Some Off-Subdivision Needs Does Not Convert Them into Public Works.

Second, the court held that requiring artificial drainage facilities and conveying water across properties over which it might not have flowed when the area was undeveloped does not convert those improvements into public works. The court explained that if government-required improvements on one subdivision are deemed "public works" if they serve drainage needs of properties outside that subdivision, then local governments would be reluctant to ensure proper improvements are made as part of the development process, as doing so would impose responsibility and the associated costs on them for maintaining and repairing all such improvements.

There Was No Implied Acceptance of the Drainage Easements by the County.

Third, the court held that requiring improvements and easements does not convert the improvements into public works, and because the county did not construct the improvements and performed no maintenance or repair work on the improvements, there could be no implied acceptance.

The Creek was not Part of the Public Drainage System.

Finally, the court explained that utilizing an existing watercourse for drainage of surface water runoff, and requiring others to do so, does not transform the watercourse into a public drainage system; there must be some affirmative action by the public entity to assume ownership or responsibility of the watercourse. Here, the county did not have any ownership interest in the creek and did not perform any maintenance on the creek. The drainage fees being collected by the government were placed in a fund intended to cover a future flood protection project. Simply implementing and collecting drainage fees to fund a proposed project that was never built does not convert the creek into a public drainage system.

Take-Aways

In order for a public agency to face inverse condemnation liability, one of the key findings is that the damage must be from a public improvement. Simply approving a subdivision map, requiring the construction of drainage improvements, and even requiring an offer of dedication (if not accepted), will not convert such improvements into a public work for liability purposes. These situations are very fact-specific, but demonstrating acceptance, dominion or control over the improvements in question is a necessary element to recover. Given the amount of rainfall and flooding we've experienced in 2023, I expect these issues to be fleshed out further in the courts over the coming years.

Mr. Kuhn can be reached at bkuhn@nossaman.com



Guest Article - Hot Brine

HOT BRINE ELECTRIFIES IMPERIAL VALLEY HOMES AND EV MAKER'S DREAMS

By Jeremy Bagott, MAI, AI-GRS Permission to Re-Publish – All Rights Reserved



Ed. Note: Jeremy Bagott, MAI, AI-GRS, is an independent fee appraiser specializing in the valuation of real property rights for right-of-way clients in Southern and Central California. He is author of "The Compact Real Estate Appraiser" and "Guaconomics: Dipping a Chip into America's Besieged Party Bowl [gmail.us6.list-manage.com]."

VENTURA, Calif. (Aug. 18, 2023) – For many years, a 1962 borehole near the Salton Sea in Imperial County, California, was the deepest well ever drilled [gmail.us6.list-manage.com] for geothermal power in a high-temperature hot spring zone. It reached 5,232 feet. However, many oil and gas exploration wells by that time were much deeper. Of course, the Kola Superdeep Borehole SG-3 in Russia's Kola Peninsula near its border with Norway still holds the record for the deepest borehole. The Kola Superdeep Borehole, completed in 1989, remains the deepest artificial point on Earth at 40,230 feet.

Geothermal wells in Imperial County are the source to convert geothermal energy to electricity powering the households in the Imperial Valley. However, the geothermal wells in the Imperial Valley tap a saline brine with exceptionally high potassium, and with the highest content of minor alkali elements known. It's an abundant source of lithium, the highly prized essential for the manufacture of batteries used in electric vehicles.

Scattered around the Salton Sea – a toxic body of water now deemed a public health emergency – geothermal facilities generate electricity for 70,000 households. The plants harness energy from the boiling ooze. However, the value of the brine's lithium is <u>soaring [gmail.us6.list-manage.com]</u> – \$70,000 per ton. That presents some interesting possibilities. Elon Musk recently likened lithium production to a "license to print money."

The highly conductive element is present in an array of products ranging from psychiatric medications to ceramics. However, it is its use in rechargeable battery manufacturing that exerts dominance over about two-thirds of the current supply. The untapped global reservoir of lithium measures 89 million metric tons. Even with this substantial figure, projections for electric-vehicle demand through 2050 suggest there will be challenges in meeting what has become a lithium arm's race.

When the Nissan Leaf was unveiled in 2010, the initial all-electric model was <u>equipped [gmail.us6.list-manage.com]</u> with a 24 kWh lithium-ion battery. As the decade progressed, consumers clamored for greater battery life. By 2021, the global average capacity for EV batteries had increased to slightly over 40 kWh. Within the United States, this figure has now surged to 70 kWh, driven by consumer preferences for vehicles capable of covering extensive distances on a single charge. New electric trucks are equipped with even larger batteries, pushing the boundaries further. The poster child of this progression is the 2023 GMC Hummer EV SUT with its 205 kWh battery. This push in capacity isn't limited solely to four-wheeled vehicles; it extends to other contexts, as well.

At the Salton Sea, three companies—Berkshire Hathaway Energy, Controlled Thermal, and EnergySource lithium Minerals—believe they've devised methods to extract from the scorching brine. These companies want to refine the brine's constituents into a lithium variant suitable for battery manufacture. In a statement to Reuters late last year, Berkshire Energy reported [gmail.us6.list-manage.com] it had planned to develop a first-of-its-kind demonstration plant to produce lithium hydroxide at Salton Sea, but subsequently decided to use a commercially proven process to produce lithium carbonate instead. Berkshire was facing problems extracting lithium from the brines, according to three anonymous sources with direct knowledge of the operation.

Early this year, Controlled Thermal Resources <u>announced [gmail.us6.list-manage.com]</u> it had achieved efficient lithium extraction from the Salton Sea brine and was preparing for Stage 1 construction of a facility called "Hell's Kitchen Stage 1."

The combined lithium output by the three companies could reach 100,000 metric tons by about 2027, based on company targets. That would be enough to power more than 50 million electric cars. It implies the brine of the troubled Salton Sea is potentially worth \$6 billion. Lithium refining also represents a source of employment and tax dollars for one of the poorest parts of California, where the median household income is 40% below the state average.

Four nations control the lion's share of the planet's lithium reserves. None has effectively harnessed the resource at scale. A mere four of countries — Australia, Chile, China, and Argentina — control 95% of global lithium production. The U.S. contribution to worldwide processing in 2021 amounted to a mere 1,000 metric tons out of the total 105,800 metric tons produced.



<u>Hot Brine</u>

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The ordinary process of extracting lithium from hard-rock involves the dissolution of mined ores through the utilization of sulfuric acid, ultimately leaving behind the lithium for recovery. Although this approach yields elevated concentrations of the metal, it is accompanied by significant costs, heightened carbondioxide emissions, and added demands on freshwater resources. Even after the acid-based processing, the hard-rock extraction method generates substantial waste tailings, which worsens its environmental impact. *Mr. Bagott can be contacted at jbagott@gmail.com*



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Guest Article - Paleoclimate



WHAT PALEOCLIMATE TELLS US ABOUT A WARMING WORLD

By Dwayne Purvis, P.E. Founder & Principal Advisor Permission to Re-Publish – All Rights Reserved

Ed. Note: Dwayne Purvis, P.E. has been a consulting petroleum engineer for 28 years, he recently earned a degree in sustainable energy and now focuses on research, writing and speaking about the energy transition for the oil and gas industry.

No discipline knows the history of Earth's climate cold like petroleum geologists. With their help, those of us in the oil industry can see the really big picture of climate. But I wonder whether we might be missing the precious trees because we can only see the metaphorical forest.

We've intensely studied the last 500 million years or so since the Cambrian explosion of organic life made it possible to create oil from dead organic mess. In that big picture, life has thrived in many forms and under many conditions. The "old life" of the Paleozoic swarmed in the seas while the "middle life" of the Mesozoic dominated land as reptiles, and the recent life of the Cenozoic has grown hair to fit better the cooler world.

Those eons saw five major mass extinctions plus a number of smaller extinctions. In one event, an asteroid instantly rained down hellfire and pushed a tsunami over the land then covered its survivors with a sun-blocking blanket of atmospheric soot. In another, extended vulcanism flooded the air instead with greenhouse gases and changed the thermostat of the whole biosphere. In others, organic life may have altered the chemistry of the biosphere. Each time, life never completely ended, then it came back again if in a little different form.

Carbon dioxide in the atmosphere has wavered up and down from perhaps as high as about 15,000 ppm to as low as the levels seen when mankind stood upright and declared to its Creator that it would make its own choices. In fact, much of that formerly atmospheric carbon now sits trapped in the Ordivician and especially the Cretaceous limestone formations we often target. Even in 1896 in his landmark analysis of thermal insulation of the atmosphere, Svante Arrhenius recognized this fact and used it among his multiple lines of evidence for the mechanism and feasibility of anthropogenic climate change.

The Earth spins rapidly, leans back-and-forth each year, and wobbles very slowly in an orbit around the sun that itself rhythmically deforms and reshapes over the ages. The sun as source of our heat goes through 11-year cycles likely embedded into longer-term oscillations even as it burns a little hotter from epoch to epoch. The planet has seen ice ages, large and small, and much higher average temperatures—sometimes with glaciers into today's temperate latitudes and sometimes with tropical conditions near the poles.

We know all of this, in part, because of the rocks those climates left behind, stacked now on the continents like memory albums to be opened and decoded. Shallow tropical seas, in-land lakes, rivers meandering to massive deltas embedded in terrestrial clays, pelagic vaults of the finest detritus, and all with their own fossil record of life. Petroleum geologists, palynologists, and biostratigraphers see firsthand the big picture of a world changing widely over the eons. When engineers will stop to listen to them, we learn the same story. Ironically, that intimate familiarity with the grand picture can obscure the significance of a much more granular one, today's.

The planet's climate has changed, and life has survived through it all. But not human life. Life has grown back from widespread losses, but on a timescale much longer than human lives.

Of the overlapping dynamics that add up to create one climate pattern or another, many have been the cause of small and large variations in the past. Human influence has varied, too, including some airborne particles that absorb and some that reflect incoming sunlight, ozone-depleting substances that open a portal in Antarctica for greater incoming sunlight, and of course the various insulating gases. Early in the science of climatology, the dynamics were still being teased apart. In the same years, the science of geology was still concluding the debate of the "theory" of plate tectonics, and sequence stratigraphy and seismic imagining were both in their infancy.

The elements of the climate system have, like drifting and colliding plates, now been postulated, proved, and relied upon to, for example, explain the largest variations in paleoclimate recorded in the geology. By affirmative and exclusionary evidence about the candidate explanations for today's changes, the accumulation of human waste gases remains the only viable explanation, and this question has been studied by far more people over far more years than the texture of any single carbonate or the diagenesis of any single sandstone. Climatology, including research into paleoclimate, is its own body of knowledge, maturing and improving. Nature may eventually threaten humanity again in the future with Paleoclimate a devastating meteorite or extended vulcanism, but we have more agency over self-harm.

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If the influence of mankind does mark the start of the Anthropocene and the sixth great extinction,

continued from page 30 mankind will probably still be one of its survivors. That is to say, the race of man will endure. When life thrived previously on a much hotter planet, the climate was perfect for lizards and fish; what mammals did exist were few, small, and mostly nocturnal. The cooling after the Cretaceous-Tertiary boundary gave rise to the age of mammals, including man. Life grew back, but with new adaptations and over millions of years.

If the planet had already been a couple of degrees warmer 10,000 years ago – along with the attendant differences in climate patterns – then mankind would still have developed the planet, but we would have done so differently. We would have settled different parts of the globe, and we would have built different structures and systems in those places: farms and crops, water supply and homes, roads and vacation spots. As it stands today, the accumulated wealth of human history—our physical infrastructure and interlocking systems to meet our needs-- have all been finely tuned for exactly the climate that no longer exists. How obsolete and non-functional those assets become depend upon how much our terrarium changes. It is possible, especially given postulated but untested feedback loops, that our terrarium could change a great deal.

We can adapt, and humanity can still survive in a world of different weather patterns. On the other hand, we have optimized our current systems to support (with varying degrees of success) about eight billion people spread into almost every crevice of the continents. If our support systems are no longer optimal in one place or another or in many places, then large contingents of people depending upon those interlocking systems face suffering. Eventually, mankind may rebuild its losses, but not without costs—financial and human—in proportion to the change.

If the natural world also suffers large-scale loss, it will almost certainly grow back; the planet can be very patient. Paleo history tells us that the surviving species better suited to the new environment will grow in numbers to populate new vacancies, but mankind will not again see the colorful, glorious, fecund diversity of the world we were born into. The millions of years that it will take to recolor the planet are longer than mankind can expect to survive as a species, certainly longer than my grandchildren will survive.

The climate has changed many times over history but never with so much at stake to the people I love and the wild world I enjoy, never with so much for families like mine in India, Iraq, and Indonesia. Even if some form of metaphorical forest will survive for millennia, it is today's figurative individual trees that I want to protect.

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Bibikos At the Well

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Mr. Bibikos practices as GA Bibikos, LLC, an oil and gas law practice, with his office in Harrisburg, PA, he can be reached at <u>gbibikos@gabibikos.com</u>.

Below are various oil and gas cases recited in his blog site [gabibikos.com] At the Well Weekly which may be of interest for your further inquiry.

Interesting

- **Mountain Valley Pipeline [Update].** The Mountain Valley Pipeline is back on track, with the Fourth Circuit begrudgingly dismissing challenges from environmental groups after Congress stripped that court of jurisdiction. The project is scheduled for completion in late 2023/early 2024. Activists reportedly continue to vandalize construction sites.
- Fourth Circuit Reluctantly Dismisses Environmentals' Appeal Challenging Mountain Vally Pipeline Permits per the Fiscal Responsibility Act. A disgruntled Fourth Circuit applied Section 324 of the Fiscal Responsibility Act that helped the Mountain Valley Pipeline get its permits and removed jurisdiction from the Fourth Circuit over permit disputes. The judges complained about Congress taking away its jurisdiction but held that the court had no choice but to dismiss the appeal. Appalachian Voices v. United States Dep't of the Interior, --- F.4th ----, No. 23-1384, 2023 WL 5163878 (4th Cir. Aug. 11, 2023).

Headlines & Holdings – Appalachia

- Ohio Court Says No Overrides on Deep Horizontal Wells. A federal court in Ohio rejected claims that lessees owed a fractional working-interest owner overriding royalties on oil and gas produced from deep horizontal wells, agreeing with the lessees' interpretation of the assignment document that limits the override to oil and gas produced by vertical shallow wells which existed at the time of the ORRI assignment. Sabre Energy Corp. v. Gulfport Energy Corp., --- F. Supp. 3d ----, No. 2:19-CV-5559, 2023 WL 4686357 (S.D. Ohio July 21, 2023).
- Ohio Court of Appeals Says O+G Lease Expired for Lack of Production in Paying Quantities. A court of appeals in Ohio held that a lessee failed to establish that oil and gas wells produced in paying quantities in order to keep its lease alive, holding that the lessee had the burden of proof on that question (as a sanction for discovery violations) and the lessee did not provide mathematical evidence to determine whether profits from the wells exceeded their operating costs. *McCoy v. C.G.O. Inc.*, --- N.E.3d ----, No. 22 MO 0015, 2023 WL 5426413, (Ohio Ct. App. Aug. 22, 2023).
- *Pennsylvania Superior Court Says Tenancy-at-Will did not Save Oil and Gas Lease.* A court of appeals in Pennsylvania held that an oil and gas lease expired for lack of production years ago despite shut-in payments after the lease already expired, declining to find an at-will tenancy following lease expiration and, even if an at-will tenancy ensued, that tenancy expired when the successors to the first lessors entered into a subsequent lease with another lessee. *Douglas Equipment, Inc. v. EQT Prod. Co.*, --- A.3d ----, No. 674 WDA 2022, 2023 WL 5239153 (Pa. Super. Aug. 15, 2023).
- West Virginia Federal Court Asks State Supremes to Answer Implied Covenant PPC Questions in Oil and Gas Lease Dispute. A federal court in West Virginia certified the following questions for the West Virginia Supreme Court's input: "Question 1: Is there an implied duty to market for leases containing an inkind royalty provision? Question 2: Do the requirements for the deductions of post-production expenses from Wellman v. Energy Resources, Inc., 557 S.E.2d 254 (W. Va. 2001) and Estate of Tawney v. Columbia Natural Resources, 633 S.E.2d 22 (W. Va. 2006), apply to leases containing an in-kind royalty provision?" Kaess v. BB Land, LLC, --- F. Supp. 3d ----, No. 1:22-CV-51, 2023 WL 5515741 (N.D.W. Va. Aug. 25, 2023).

Headlines & Holdings - Beyond Appalachia

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- *California Supremes Scrap Local Ordinance Banning Oil and Gas Operations.* The Supreme Court of California held that state law preempted a local ordinance banning new oil and gas wells throughout the county's unincorporated areas. *Chevron U.S.A. Inc. v. Cnty. of Monterey*, --- P.3d ----, No. S271869, 2023 WL 4940263 (Cal. Aug. 3, 2023).
- Tenth Circuit Reaffirms "Material Interference" Standard for Surface Use Claims in Colorado. The Tenth Circuit upheld a prior ruling and applied it as law of the case to deny landowner claims that a well operator trespassed on their surface estate, concluding that a landowner must show that a surface use is infeasible or nearly impossible as a result of surface operations in order to prevail on a trespass claim for excessive surface use. *Bay v. Anadarko E&P Onshore LLC*, --- F.4th ----, No. 21-1361, 2023 WL 4571430 (10th Cir. July 18, 2023).
- North Dakota Supremes Say Oil and Gas Leases Expired after Cessation of Production and No Timely *Rework Operations*. The Supreme Court of North Dakota held that oil and gas leases expired after production from wells ceased and the lessee failed to commence reworking operations within the time specified by the leases, thereby breathing life into the top leases owned by another lessee. *Zavanna, LLC v. GADECO, LLC, ---* N.W.2d ----, No. 20220265, 2023 WL 4917399 (N.D. August 2, 2023).
- *Eighth Circuit Tackles Over Conveyance of Oil and Gas Interests.* Applying the familiar *Duhig* rule of interpretation adopted in North Dakota, the Eighth Circuit concluded that a deed granting a 3/4 mineral interest resulted in an over conveyance to the grantee given the grantor only held a 1/2 mineral interest at the time of the conveyance; the grantor could only reserve a 1/4 mineral interest; his successor could not claim title to a 1/2 mineral interest; and none of this created an ambiguity in the deed sufficient to overcome application of the *Duhig* rule. *N. Oil & Gas, Inc. v. EOG Res., Inc., ---* F.4th ----, No. 22-2053, 2023 WL 4555027 (8th Cir. July 17, 2023).
- *New Mexico Supreme Court Tackles Bona Fide Purchase Status for Purchaser of Mineral Rights.* The New Mexico Supreme Court held that a party who purchases property sold under a judgment that is not void on its face is entitled to bona fide purchaser status and that extrinsic evidence of lack of jurisdiction is not permitted to overcome the rights of a purchaser who properly relied upon the order of the court as "an authority emanating from a competent source." *In re: Welch*, --- S.W.3d ----, No. S-1-SC-38601, 2023 WL 4523298 (N.M. July 13, 2023).
- *Texas Appellate Court Interprets Deed as Creating Floating NPRI*. A court of appeals in Texas overruled a trial court order interpreting a 1951 deed as conveying a fixed 1/128th royalty interest and held instead that the deed conveyed a non-participating 1/16th mineral interest with a corresponding floating 1/16th royalty interest. *Johnson v. Clifton*, --- S.W.3d ----, No. 08-22-00132-CV, 2023 WL 4443016 (Tex. App. July 10, 2023).
- *Texas Appellate Court Interprets Deed as Creating Floating Royalty Interest.* A court of appeals in Texas overruled a trial court order interpreting a 1937 deed as reserving a 1/16th fixed royalty and held instead that the deed reserved a 1/2 floating royalty interest. *Permico Royalties, LLC v. Oestreich, ---* S.W.3d ----, No. 08-22-00168-CV, 2023 WL 4442007 (Tex. App. July 10, 2023).
- *Texas Appeals Court Says Oil and Gas Lessee Owns Produced Water from Frac Operations.* A court of appeals in Texas held that a lessee, not the surface owner or its contractor (with which the surface owner had a produced water lease agreement), owns all the produced water from frac operations, holding that (a) produced water is "waste" under various statutes and authorities; (b) nothing in the lease suggested the lessor/surface owner reserved rights to oil and gas waste produced during drilling operations; and (c) the lessee had the right to the oil and gas product stream, including the produced water. The dissenting justice would have interpreted the granting clause in the lease as conveying oil, gas, and hydrocarbons produced from the leased property but not the water incidentally recovered from the subsurface from which oil and

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gas has been removed. *Cactus Water Servs.*, *LLC v. COG Operating*, *LLC*, --- S.W.3d ----, No.08-22-00037-CV, 2023 WL 4846861 (Tex. App. July 28, 2023).

• *Texas Appeals Court Orders Duhig Redo.* A court of appeals in Texas held that an NPRI reserved by grantors presented a Duhig problem (i.e., an overconveyance of that interest) but there is no "Duhig remedy" available that would estop a claim of title to the mineral estate. *Echols Minerals, LLC v. Green,* --- S.W.3d ----, No. 11-21-00154-CV, 2023 WL 5280828 (Tex. App. Aug. 17, 2023).



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Ask Chat Al

Ed. Note. "For the next few issues, we will be featuring short essays/articles written by the Open AI bot known as Chat GPT. Chat GPT has been used across a range of creative uses from meal planning to research papers. The highly controversial bot has conquered enormous feats, such as passing the multiple-choice section of the bar exam within the top 10%; But it is also well known that ChatGPT has no filter and can pick up misinformation and present it as fact. In this next year we will ask ChatGPT a series of questions testing its knowledge and our tolerance for AI written material. Please enjoy this piece, where ChatGPT answers the prompt "I am a landman, I am worried that new technology and "green initiatives" will affect my future career. Are landmen no longer needed? Please write a publishable 600-word article on this topic." LAAPL does not endorse the accuracy of the below article, and without regards to any punctuation errors, spellings or editorial oversight.

Title: The Evolving Role of Landmen in an Era of Technological Advancement and Green Initiatives

Introduction: The role of a landman has been a cornerstone of the energy and real estate industries for decades. Responsible for facilitating the acquisition of land rights, negotiating leases, and ensuring compliance with regulations, landmen have played a vital role in the development of natural resources and infrastructure projects. However, the advent of new technologies and the growing emphasis on green initiatives have raised questions about the future relevance of this profession. In this article, we delve into the evolving landscape for landmen and explore whether their role is diminishing or transforming in response to these changes.

The Impact of Technology: Technological advancements have disrupted industries across the board, and the field of land management is no exception. Automated data collection, Geographic Information Systems (GIS), and cloud-based databases have streamlined the process of gathering and analyzing crucial information, reducing the manual effort previously required. Digital tools enable landmen to access and process data with unprecedented speed and accuracy, improving decision-making and efficiency in land acquisition.

Furthermore, Artificial Intelligence (AI) and Machine Learning (ML) algorithms can help predict potential land risks, evaluate market trends, and optimize negotiation strategies. These tools assist landmen in making more informed decisions and enhance their ability to navigate complex legal and regulatory frameworks. However, it's important to note that while technology enhances efficiency, it cannot replace the human element of negotiation and relationship-building that defines the role of a landman.

The Rise of Green Initiatives: The global shift towards sustainable practices and renewable energy sources has led to increased emphasis on reducing the environmental impact of land development. Green initiatives seek to minimize disruption to ecosystems, conserve biodiversity, and ensure responsible land use. This transition is prompting landmen to adapt their skill sets to align with environmentally conscious principles.

As the energy landscape evolves, landmen are faced with the challenge of navigating regulatory landscapes that demand a deeper understanding of renewable energy regulations, emissions reduction targets, and carbon offset strategies. This transition necessitates a shift in focus from traditional energy projects to renewable energy initiatives, such as solar and wind farms, which require negotiation of land leases and agreements.

The Transformation of the Landman Role: While the evolving technological and environmental landscape may pose challenges to the traditional role of landmen, it is important to recognize that these changes are also creating opportunities for professional growth and reinvention. Instead of becoming obsolete, landmen have the chance to evolve and remain relevant by acquiring new skills and embracing innovation.

1. Adopting Technological Proficiency: Landmen can capitalize on technology by becoming proficient in using GIS, data analytics, and AI-driven tools. These skills can enhance their ability to identify prospective land parcels, assess risks, and optimize negotiation strategies.

2. Embracing Sustainability: As the world transitions to greener practices, landmen can specialize in navigating the complex landscape of renewable energy regulations and sustainability criteria. They can contribute to project development by ensuring compliance with environmental standards and negotiating agreements that align with green initiatives.

3. Building Relationships: Despite technological advancements, the human touch remains invaluable. Establishing strong relationships with landowners, local communities, and regulatory bodies is a skill that technology cannot replicate. Landmen can leverage these connections to facilitate successful negotiations and foster positive community engagement.

Ask Chat Al continued from page 35 4. Adapting Legal and Regulatory Expertise: The changing energy and environmental landscape demands a comprehensive understanding of evolving regulations. Landmen can expand their expertise

to encompass renewable energy laws, emissions regulations, and carbon markets, positioning themselves as indispensable resources in the industry.

Conclusion: In conclusion, the role of landmen is far from diminishing; instead, it is evolving to meet the demands of a rapidly changing world. Technological advancements and green initiatives are reshaping the landscape in which landmen operate, creating opportunities for professional growth and reinvention. By embracing technology, adopting sustainable practices, nurturing relationships, and expanding legal expertise, landmen can continue to play a pivotal role in shaping the future of land development and resource management. As the energy and real estate industries continue to adapt, landmen are poised to contribute their unique skills and insights to projects that balance progress with environmental responsibility.

