

RBE 7075 ANODIZER

LaCoste Consulting, LLC
Calvin & Tamara LaCoste



7075ANODIZER.COM

1-701-818-8254

DON'T FORGET YOUR ANODE

TABLE OF CONTENTS

- LaCoste Consulting, LLC
 - Services
 - History
 - 7075 Anodizer
 - Corrosion
 - How it Works
 - Applications & Area's
 - Case Studies
 - Lessons Learned
 - Installation Procedure
 - Summary



SERVICES



- Power Quality Analyzer Monitoring
- ESP Design Review
- ESP Optimization & Troubleshooting
- Electrical Design & Quote Review
- Design & Manufacture Corrosion Solutions
- ESP Installation Supervision
- ESP Teardown Inspection & Reporting
- Future growth
 - Cathodic Rectifier Services
 - Well Casing Protection
 - Flowline Protection



HISTORY



- Service Rig
- Journeyman Electrician / BCTQ-Masters
- Baker Hughes- 24 years, ESP troubleshoot & Training throughout North America
- Designed the first successful Unconventional ESP systems used in NA & Europe
- Transferred to North Dakota (2011) to establish the Bakken ESP market
- Train ESP design – Autograph design/simulation software training
- Summit ESP- Train staff on ESP Bakken/ CO2 applications & new customer base
- CO2 design and Consultation



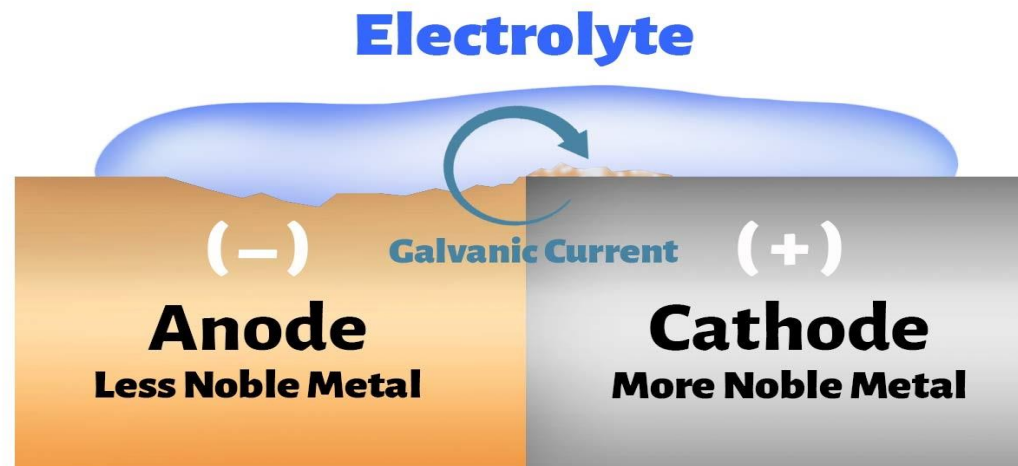
RBE 7075 ANODIZER

- Installed my first Sacrificial Anode in 1994
- Sold and promoted the benefits of Sacrificial Anodes since 1994
- Designed our own product because it use to be a special-order (delays)
- Manufacture in Minot, ND since August 2020
- Expanded our product offering May 2021
- Interesting fact- All metal caskets sold in North America since 1994 require sacrificial anodes.



CORROSION

- “Electromechanical Phenomenon” better known as Corrosion.
- Sacrificial Anodes become the more active metal and corrode at a faster rate than the more noble metals.



Galvanic/Bimetallic Corrosion of dissimilar metals.



HOW DOES THE ANODE WORK

- The Electrolyte flows past the Anode, charging the metal (cathode) which is in contact with the Anode.
- An Anode is consumed completely before the other metals react to the electrolytes.
- Fresh water treatments will attack the Magnesium.
- Salt water will attack the Zinc.
- Once the Zinc & Magnesium are dissolved, the Aluminum will dissolve next. Thus, giving the Anode a honeycomb appearance.
- All metals immersed in an electrolyte produce an electric voltage. The most active metal becomes the Anode to the others and sacrifices itself by corroding to protect the cathode. Hence the term Sacrificial Anode.

Magnesium

Zinc

Aluminum

Steel

Lead

Tin

Nickel

Brass

Bronzes

Copper

Stainless Steel (passive)

Silver

Gold

Platinum

APPLICATIONS & AREAS

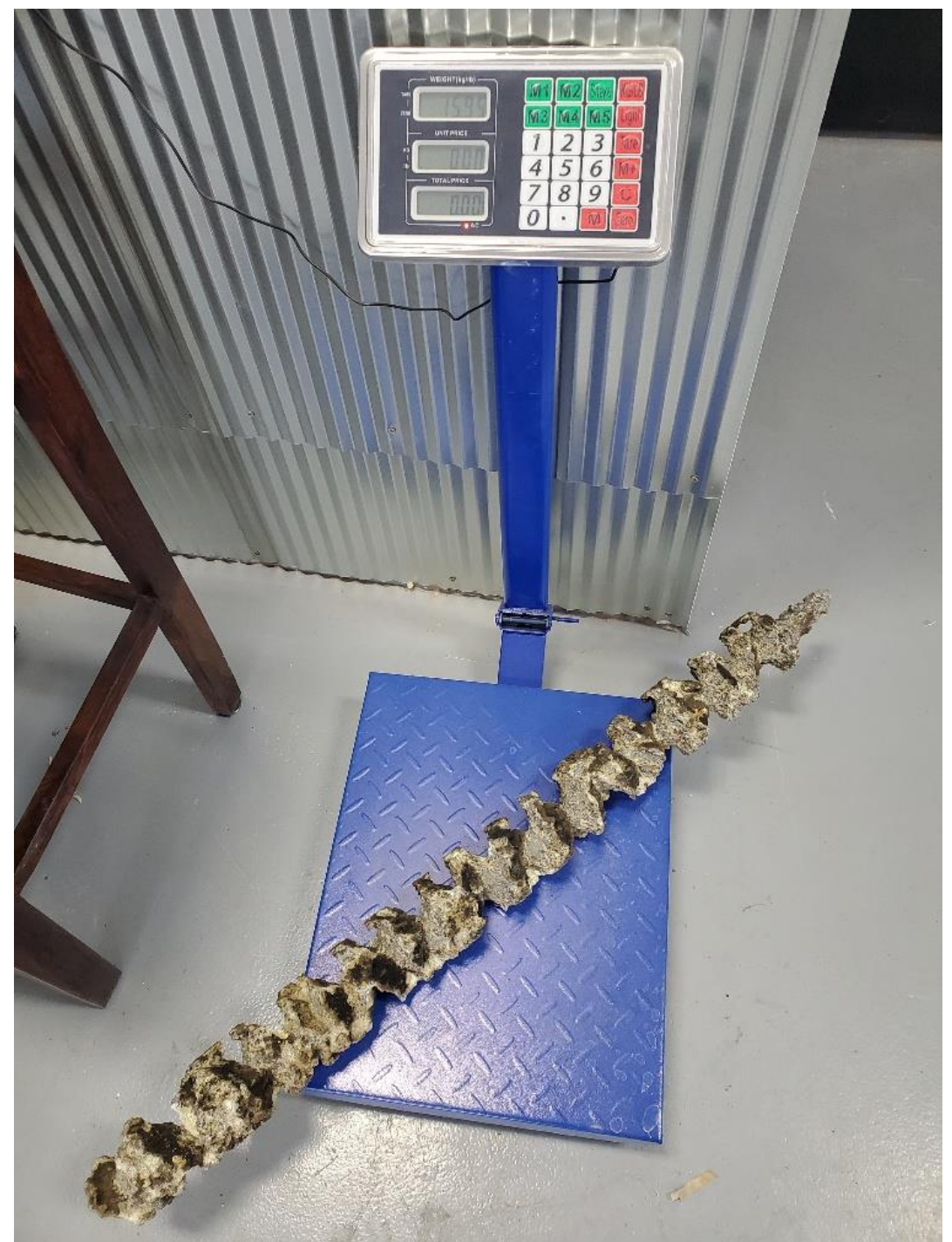
- Copper Mining Applications- Utah
- CO2 Applications- Central Alberta
- SAGD Applications- Northern Alberta
- Geothermal Applications- Southern Saskatchewan
- Helium Applications- Southwest Saskatchewan
- Conventional & Unconventional Applications- North & South America
- North Dakota & Montana has the highest concentration of 7075 Anodizers
- McKenzie, Williams & Dunn unconventional wells are currently utilizing the highest number of 7075 Anodizers.



CASE STUDIES

Customer in Williams county was averaging 28 red band and as high as 70 red band joints after numerous short runs due to corrosion.

Started running RBE-7075 Anodizers in August 2020- have only had one red band joint in nearly 3300 joints pulled, no pull was due to corrosion. The Anode in this hi producing ESP well with the one Red band joint weighed 15.95 lbs. when recovered. The 7075 Anodizers weighs 46 new.



LESSONS LEARNED

- Original 7075 Anodizer had a tapered neck when installed below a NoGo we noticed a very aggressive erosion corrosion on the neck of the Anode.



- Generation 4: RBE-7075 Anodizer is built with a full neck up to 1-2 mm of threads being buried. Although we have only seen this aggressive corrosion under NoGo's, we redesigned all Anodes and added a protective SS coating for long lasting protection.



INSTALLATION PROCEDURE

- All RBE- 7070, 7072 & 7075 Anodizers have a 2 3/8” EUE pin end.
- All RBE-7078 Anodizers have a 2 7/8” EUE pin end complete with SS coating and high temp paint.
- Do not use any dope on threads / no lubricant
- Clean threads and insert dry (metal to metal contact) for best results
- Tighten with a 24” pipe wrench snug (treat like fiberglass threads)
- Do not bite onto the painted area, or protected area of Anode.
- **7075 Anodizers are ideal corrosion protection for ESP, Rod pump, Gas lift, SWD**



TYPICAL ROD LIFT INSTALLATIONS USING ANODES

- PSN, tail joint, 2 x 6' perforated pup joints, RBE- 7078 Anode. (it's a pour boy Anchor with the Anode being the bull plug)
- PSN, 2 x 6' perforated pup joints, 1 joint of tubing, RBE- 7078 Anode. (it's a pour boy mud anchor with the Anode being the bull plug)
- Proposed
- PSN, 1 joint, Q2 Whale Shark Gas/ Sand Separator, 5 x mud joints, RBE- 7078 Anode.



SUMMARY

- The RBE -7075 Anodizer is a simple product that will help your company eliminate premature failures due to corrosion.
- The Sacrificial Anode will dissolve into a liquid form, your application will dictate how fast or aggressive the corrosion will eat the anode.
- LaCoste Consulting LLC will update the 7075anodizer.com website for all our customers to benefit from the most current information and case studies.



**THANK YOU, WE APPRECIATE YOUR
INTEREST IN OUR PRODUCT**



7075ANODIZER.COM

1-701-818-8254

DON'T FORGET YOUR ANODE

