

PJ Inc.



Corporate Presentation 2021

Global Leader in Pipeline Transportation Systems

Providing complete EPCM solutions from project conception to implementation

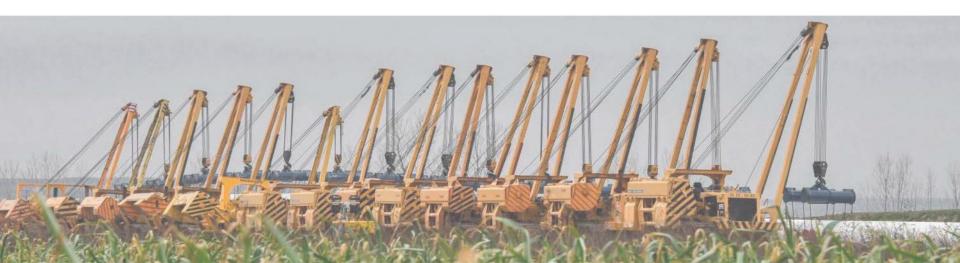






PJ Company

- PJ was established to provide slurry transport systems expertise with emphasis on quality of delivery and focus on customer needs.
- PJ offers engineering, procurement, construction management and commissioning and startup services for pipeline projects worldwide, for slurry, tailings and water pipeline transportation systems.
- PJ offers the full range of engineering services including conceptual design, feasibility studies, basic and detailed engineering, construction engineering, operator training and support.



PJ



At PJ we believe that:

- Safety of our personnel, our partners and the local population is our top priority.
- Everyone has the right to return home safely.
- We need to minimize our impacts on the environment.
- We must minimize impacts to the landowners and communities.
- We shall deliver our projects to meet our Clients requirements.
- Quality of services is a requirement not an option.

Corporate Values



SAFETY

We are committed to the safety of our employees, their families and communities, we identify with the "Zero Harm" culture. Our commitment is that everyone has a safe return home.



ENVIRONMENT

We are aware of our responsibility to minimize our impacts in the environment and strive to leave a better world for future generations.



QUALITY

We take pride of the quality of our work. We want to ensure the success of our projects and the full satisfaction of our customers.



SOCIAL

We care about delivering projects being respectful with the people and communities around us, contributing to their growth and development.



ETHICS

We develop our projects and perform with honesty, justice and loyalty. Ethics conducts our actions to do the right thing in any circumstance.



SUSTAINABILITY

We know that everything we do today has an impact on how we create our future, and generate better results and solutions for our customers, partners and the industry in the long term.

Our Offices

Headquarters:



PJ Inc. – San Francisco, California, USA

Branches:





PJ Chile - Santiago



PJ Perú – Lima





Key Management Personnel

- Ron Ottaway President of the PJ based in San Francisco, CA USA at present. Previously held the position of Senior Vice President of PSI and General Manager of PSI-JRI from 2004 to 2011.
- Ron Derammelaere Board Member was the Ex-President of PSI based in San Francisco, CA
- Tom Aude Board Member and Founder of PSI based in San Francisco, CA
- Juan Rayo Board Member and Founder of JRI based in Santiago, Chile
- Sebastián Rayo Board Member

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What sets us apart



Company setup

- Privately owned Joint Venture.
- □ Joint Venture has experience working together for almost 15 years.
- Our successful working relationship in the past has allowed us to successfully execute projects to the satisfaction of our Clients.

Experience

- Our key experts have played a major role in nearly every slurry pipeline constructed to date and many of these are still in operation.
- Understanding of how to deliver projects through all phases of execution.



What sets us apart



Staffing

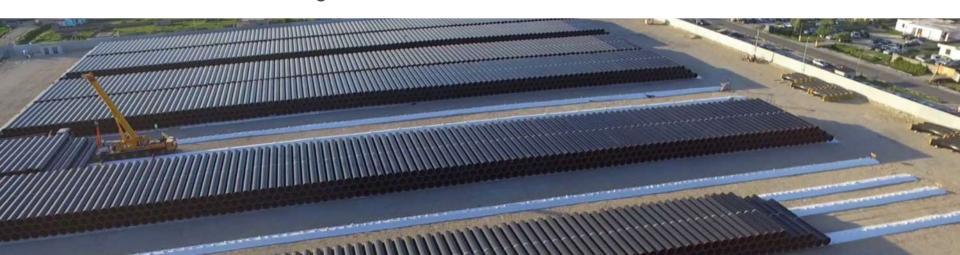
- □ 400 technical staff available.
- □ Experience in delivery of all phases of EPCM work.
- □ Experience with large diameter, long distance pipelines.

Mobilization

□ As a private company, we can mobilize quickly to meet your project schedule requirements.

Globalization

- Our PJ experts have completed projects around the world.
- Understand working with the local cultures.



What we offer



- Process Hydraulics
 - □ Over 40 years experience.
 - Most experienced group of slurry systems engineers.
- Pipeline Engineering
 - □ Pipeline route selection and pipeline design.
 - Understand the importance of designing for safety and environmental impacts.
 - Experience in managing land acquisition, social impacts and social investment programs.
 - □ Pipeline construction cost estimating and the work required to meet the Client's accuracy levels.



What we offer



Procurement and Contracts

 Experienced in tendering, evaluation, negotiation and award of major supply and construction contracts.

Construction management

- Experienced in management of construction contracts and understanding of claims avoidance.
- □ Understand the importance of implementing quality inspection into project execution.

Commissioning and Startup

 □ Experienced in completions, precommissioning, commissioning, start-up and handover of major pipeline installations.

Pipeline Services Summary



- Conceptual Engineering, Feasibility Studies, Basic Engineering, Detailed Engineering and Field Engineering
- Cover all the Engineering Disciplines
- Construction management
- Quality assurance and quality control inspection
- Completions, commissioning and startup assistance
- Operations and Maintenance (Operational readiness, training, periodic inspections, remote support, operations and capacity audits).

- ISO 9001 compliant with written procedures
 - Health, Safety and Environmental procedures in accordance to international standards



Current Clients



















Capacity and References of Hydraulic transportation systems



PJ has experience in ore, concentrate and tailings pumping systems as well as seawater, desalinated water, oil and gas pipelines.

PJ has experience in the design of mineral ore and concentrate systems of different nature:

- Copper
- Iron
- Phosphate
- Coal
- Zinc
- Lead
- Nickel Laterite
- Limestone





Project Name	Location	Length (km)	Diameter (inch)	Throughput (Mtpy)	Year of Operation
Copper Concentrate and Ore					
Los Bronces (Ore) -Field Engineering	Chile	57	24	20.0	2020-2023
Los Bronces (Ore) -Pipeline Replacement Engineering	Chile	57	24	20.0	2015-2020
Antamina Expansion	Peru	304	10	2.8	2011-2012
Escondida (Ore)	Chile	106	6/9	2.5	2009-2010
Centinela (Esperanza)	Chile	144	5-7	0.9	2012
Los Pelambres Expansion	Chile	171	7	1.2	2006
Collahuasi Expansion	Chile	103	8	1.5	2006
Los Bronces (Ore)	Chile	52	28	37.5	2011
Los Bronces (Ore)	Chile	57	24	20.0	2006
Batu Hijau	Indonesia	18	6	1.1	1999
Los Pelambres	Chile	120	7	1.1	1999
Collahuasi	Chile	203	7	1.0	1998



Project Name	Location	Length (km)	Diameter (inch)	Throughput (Mtpy)	Year of Operation	
Copper Concentrate, Ore and Tailings						
Alumbrera	Argentina	312	6	0.8	1997	
Escondida	Chile	167	9	2.0	1995	
Los Bronces (Ore)	Chile	57	20	12.0	1992	
OK Tedi	Papa New Guinea	156	6	0.6	1987	
Mauro Tailings System (MLP)	Chile	55	36		2008	
Cerro Corona Tailings System	Peru	4-7	18		2008	
Atacocha Tailings System	Peru	4	8.6		2007	
Cerro Verde	Peru	12	16		2006	
Collahuasi	Chile	10	various		2005	
Escondida	Chile	10	various		2005	
Tintaya Tailings System	Peru	11	16		2002-2004	
Kidd Creek Tailings System	Canada	30	6		2003	
Myra Falls	Canada	2	16		2003	
Kennecot	USA	11	16			



Project Name	Location	Length (km)	Diameter (inch)	Throughput (Mtpy)	Year of Operation
Iron Concentrate					
SAMARCO (2 nd Pipeline)	Brazil	400	15/14	7.0	2008
Da Hong Shan	China	171	9	2.0	2006
ESSAR Steel	India	268	16/14	8.0	2005
Jian Shan	China	105	9	2.0	1997
SAMARCO	Brazil	6	9	1.4	1993
New Zealand Steel	New Zealand	18	8	1.3	1986
La Perla-Hercules	Mexico	85/295	8/14	4.5	1982
SAMARCO	Brazil	398	20	12.0	1977
Kudremukh	India	71	18	7.5	1980
Las Truchas	Mexico	27	10	1.5	1976
Sierra Grande	Argentina	32	8	2.1	1976



Project Name	Location	Length (km)	Diameter (inch)	Throughput (Mtpy)	Year of Operation
Iron Concentrate					
Pena Colorado	Mexico	48	8/11	4.0	1974
Waipipi	New Zealand	6	8	1.0	1971
Savage River	Tasmania	85	9	2.3	1967



Project Name`	Location	Length (km)	Diameter (inch)	Throughput (Mtpy)	Year of Operation
Phosphate Concentrate					
Weng Fu	China	45	9	2.0	1995
OCP ⁽¹⁾	Morocco	186	36	38	
Mosaic	Brasil	120	9	1,9	~1978
Nickel Laterite					
Ambatovy	Madagascar	225	24	7.2	2008

- (1) Khouribga phosphate is different from other world class phosphates:
 - a. It has different rheological properties because it is sedimentary, formed from bones and has high porosity (up to 40%). Other phosphates are igneous and have volcanic origin.
 - b. The viscosity vs. concentration curve is steeper. Viscosity increases dramatically above about 58% to 60% concentration by weight and the slurry becomes difficult to agitate and pump.

Worldwide Long-Distance* Oil and Gas Pipelines



Project Name	Location	Length (km)	Diameter (inch)	Throughput	Year of Operation
Oil & Gas					
Transgas High Pressure Gas Transmission System	Portugal	800	28"		1997
Baku-Tbilisi-Ceyhan (BTC) 100 bar X65 Crude Oil	Turkey	1,076	46", 42", 34"	1M bbls / day	2005
Queensland Gas Company (QGC) 100 bar X70 Coal Seam Gas	Australia	552	42"		2015
Trans Adriatic Pipeline 100 bar / 145 bar	Greece, Albania and Italy	880	48"	20 bcm	2022

Worldwide Long-Distance* Water Pipelines



Project Name	Location	Length (km)	Diameter (inch)	Throughput (m3/hr)	Year of Operation
Water Concentrate					
Centinela (Esperanza)	Chile	160	24		2010
Los Pelambres	Chile	60	32	3420	2009



Contact Information

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