



159 N. ACACIA STREET * SAN DIMAS, CA 91773
PHONE: (909) 599-9606 * FAX: (909) 599-6238

CAMARILLO, CA 93010 * PHONE: (805) 482-1215
www.genpump.com

WELL & PUMP SERVICE SINCE 1952

Lic. #496765

Serving Southern California and Central Coast

November 15, 2023

Job 15990

City of Garden Grove
11222 Acacia Parkway
Box 3070
Garden Grove, CA 92642
Attn: Robert Bermudez

Subject: Well 27

General Pump Co. is pleased to provide the engineering estimate for the above reference well. Please see associated cost below.

Engineering Inspection

- The 3-stage Peabody Floway has significant damage to the hydraulic seals. The impellers seal rings are worn and oversized. The impellers suffer significant damage due to heavy vibration. The bowl seal rings are worn/ oversized. The bowl bearings are worn. The bowl shaft has significant wear among the bearing journals. The bowl assembly exceeds manufacturer tolerances and requires replacement. GPC recommends replacing with upgraded material selection (i.e., 201SS impellers) for increased durability.
- The pump is equipped with a 14"x 10' pipe, and a 3' SS strainer. The strainer is damaged. The strainer and suction pipe requires replacement.
- All 200' of the 14" column pipe had to be cut for removal and requires replacement.
- The 14" X 3" black widow spiders are not reusable and require replacement.
- The 3" tube and 1-15/16 line shafts had to be cut out during removal and require replacement.
- The 14" x 2' top column pipe was cut. A new top pipe is required.
- The Peabody Floway 14" O/L cast discharge head is in good condition. The discharge of the head requires a 14", 300 # full face gasket. The head is reusable following reconditioning which includes removing the top pipe from the head, steam cleaning the head, wire wheeling the machined mating surfaces, cleaning, and tapping the bolt holes, painting and prepping the head for installation.
- The cut top tube is still attached to the tube tension plate assembly. The tension bearing has a large amount of pipe wrench marks. The tension plate assembly is not showing any wear and is in serviceable condition. The tension assembly needs to be sandblasted; bolt holes tapped prepped for installation.



Engineering Inspection - Cont.

- The motor is a 350 Hp GE motor. The motor megs low. Motor needs to be sent out to Delta Motor Co. for inspection and/or repairs.
- The pump was equipped with 1/4 SS airline set at 202'. New airline is required.

Shop labor

- Pressure-wash and prepare bowls for disassembly 2 Hrs.
- Tear down and inspect bowls; provide report and recommendations 6 Hrs.
- Engineering inspection and report N/C
- Unload and stage new pump materials; quality assurance 6 Hrs.
- Check proper fit of new suction pipe and strainer, weld lugs and prepare for installation 2 Hrs.
- Tear down and inspect new bowls; reassemble and prepare for installation 8 Hrs.
- Check proper fit of new column pipe; steam-clean and tighten couplings 6 Hrs.
- Uncrate, stage, and check proper fit of new line shafts 3 Hrs.
- Unbox new line shaft couplings; apply anti-seize on threads and install on shafts 4 Hrs.
- Test fit Column Reducing Bushing prior to installation 2 Hrs.
- Set-up and stab shafting assemblies in column pipe; stage equipment 6 Hrs.
- Unbox and check proper fit of column shaft tube centralizers 1 Hr.
- Machine new 3" top tube 5 Hrs.
- Remove top column nipple from discharge head 3 Hrs.
- Clean and recondition the Victaulic and discharge flange 5 Hrs.
- Machine new top column pipe (TBE, NO TOP FLANGE) 6 Hrs.
- Install top nipple assembly on discharge head 4 Hrs.
- Chase threaded holes on discharge head, paint to finish, and prepare for installation 4 Hrs.
- Fit and fabricate new SS CAL-OSHA Window Screens 2 Hrs.
- Rebuild existing tube tension assembly to OEM standards 5 Hrs.
- Machine new head shaft; install nut & key and prepare for installation 6 Hrs.
- Handle client's motor: load, unload, stage, and prepare for installation 1 Hr.
- Check proper fit of new Airline assembly; gather bracket and fittings and prep for installation 1 Hr.
- Clean and recondition components in parts bucket/Replace as necessary 2 Hrs.
- Gather necessary gaskets, fittings, and bolting to accommodate pump installation 2 Hrs.
- Dispose leftover junk materials 2 Hrs.

Est. 94 Hrs. @ \$125 \$ 11,750.00



Materials

• 10" 316SS Cone Strainer	\$ 1,210.00	
• 10" X 10' X .279" TOE NPT Suction Pipe	886.00	
• HYDROFLO 14HH 5 STG O/L	24,524.00	
• 14" X 5' X .500" TBE Butt Nipple	1,496.00	
• 14" X 20' X .437" TNC Butt Pipe	35,806.00	
• 3" x 5' Oil Tube	219.00	
• 3" X 1-15/16" X 20' T&S Assemblies	22,119.00	
• 12" X 14" Column Reducing Bushing	1,740.00	
• 12" X 20' X .375" TNC Butt Pipe	3,190.00	
• 14" BWS Centralizer	624.00	
• 14" Column pipe butt coupling	389.00	
• Materials to Refurbish 14" Discharge Head	410.00	
• Stainless-Steel Material for CAL-OSHA Screens	187.00	
• Materials to Rebuild 3" Stretch Assembly	325.00	
• Material for Stainless-Steel High-Pressure By-Pass Line	95.00	
• 1-15/16" 416SS Head Shaft w/ Nut & Key	1,862.00	
• 1/4" SS Airline Assembly w/ Gauge, Bracket, and Fittings	1,725.00	
• 14", 300# Discharge Gasket w/ Grd 5 Nut & Bolt Kit	129.00	
• Mobil DTE 32 Motor oil	154.00	
• J-Box Electrical Connection Kit	435.00	
• Consumables (Grease, Sealer, Solvent, Etc...)	125.00	
• Shipping & Handling	425.00	
• Sales Tax @ 8.75%	<u>8,581.56</u>	\$ 106,656.56

Outside Service

• Rewind existing GE 350HP Motor – 2 yr. Warranty	<i>Estimated</i>	\$ 24,000.00
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Wire Brush Well Casing

• Wire brush well with chlorine utilizing 2 new wire brushes and chlorine dispenser – Equipment, Travel, Labor - 3 days	\$8,200/Day	\$ 24,600.00	
• 2 New wire brushes & Chlorine		1,990.00	
• Sales Tax @ 8.75%		<u>174.13</u>	\$ 26,764.13



Field Labor - Install

- Load out new pump equipment.
- Mobilize to site and set up crane for installation.
- Confirm lock out / Tag out electrical.
- Proceed with pump & motor installation.
- Tie in discharge piping as required.
- Tie in electrical connections, check rotation, take lift.
- Start Up and testing.

4-Man Crew, 40T Crane, Support Rig, Flatbed Truck, & Service Truck	Est. - 20 Hrs. @ \$1,080/Hr.	\$ 21,600.00
O.T. 4-Man crew	4 Hrs. @ \$ 280/Hr.	1,120.00
Electrician & Service truck	8 Hrs. @ \$ 220/Hr.	<u>1,760.00</u>

Total Labor & Materials ***\$ 193,650.69***

Should you have any questions or need additional information regarding the above summary and associated cost, please do not hesitate to contact us. Thank you.

GENERAL PUMP COMPANY, INC.

Mark Haas

Mark Haas
Project Manager



INVOICE

INVOICE NO. 30787
INVOICE DATE 10/31/2023
CUSTOMER NO. 217
CUSTOMER P.O. P240550
CONTRACT NO. NONE

Over 65 Years of Water Well & Pump Service

159 N. ACACIA STREET, SAN DIMAS, CALIFORNIA 91773
PHONE: (909) 599-9606 FAX: (909) 599-6238
LICENSE: 496765

BILL TO: CITY OF GARDEN GROVE
BOX 3070
11222 ACACIA PARKWAY
GARDEN GROVE CA 92642

ATTN: VICTOR YERGENSON

JOB NO: 15990
PROJECT: WELL 27

SALESPERSON: 10882 **SALES TAX CODE:** 1215 **TERMS:** 30DY **DUE DATE:** 11/30/2023

Description	Amount
SHOP LABOR PREP CRANE AND TOOLING FOR BAILING OIL. PRESSURE WASH BAILER. LOAD BAILER, OIL BARRELS, AND ABSORBENTS. 4 HRS. @ \$125/HR.	500.00
FIELD LABOR MOBILIZE TO SITE AND SET UP CRANE FOR BAILING. SET UP BAILER, BARRELS, ABSORBENTS. BAIL OIL FROM WELL. SEAL BARRELS AND SET ASIDE. LOAD EQUIPMENT ONTO GPC TRUCK FOR TRANSPORT. PREP SITE FOR VIDEO SURVEY. RUN WATER INTO WELL. CLEAN & SECURE WELL SITE. DEMOBILIZE. 40T CRANE & OPERATOR, 1 MAN & FLATBED TRUCK - 9 HRS. @ \$618/HR. O.T. 2-MAN CREW - 2 HRS. @ \$110/HR.	5,562.00 220.00
EQUIPMENT & SUPPLIES 12" OIL BAILER - \$400/ DAY QTY 6 - 55GAL POLY BARRELS N/C MISC. ABSORBENT SNAKES & LITTER	400.00 150.00
OUTSIDE SERVICE DOWNHOLE VIDEO SURVEY W/ SIDE SCAN PICTURES & REPORT.	1,400.00

Thank you for your prompt payment!

GPC'S STANDARD TERMS & CONDITIONS APPLY AND ALL INVOICES ARE NET 30 DAYS FROM INVOICE DATE.
WARRANTY APPLIES ONLY TO WORKMANSHIP AND MATERIALS SUPPLIED FOR THIS PROJECT.

REMIT TO VIA MAIL:
General Pump Company
159 N. Acacia Street
San Dimas, CA 91773

REMIT TO VIA EFT:
General Pump Company
Bank Name: BankUnited
Acct Type: Busines Checking
Acct#: 9855787236
Routing#: 2670-9059-4

NON-TAXABLE AMOUNT:	8,082.00
TAXABLE AMOUNT:	150.00
SALES TAX:	13.13
INVOICE TOTAL:	8,245.13
RETENTION:	0.00
AMOUNT PAID:	0.00
AMOUNT DUE:	8,245.13