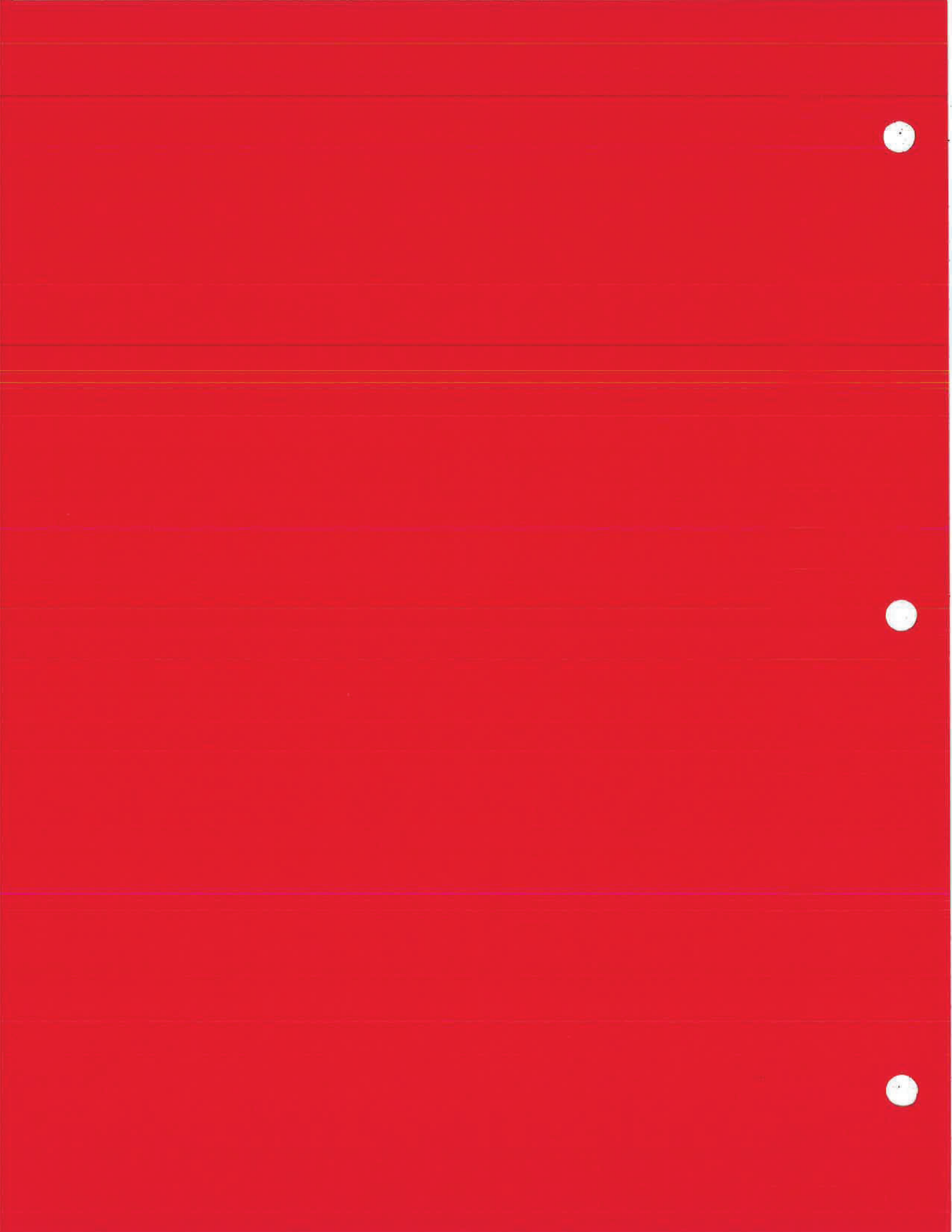


SECRET

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A

SECTION 3.0: TECHNICAL PROPOSAL

Zim Industries, Inc. has a clear understanding of the proposed systems and equipment specified in the Fitch Park ASR Well 5 and 6 well drilling project. Our approach to the performance of the Contract Work in accordance with the requirements of these specifications is described below. Zim Industries, Inc.'s approach ensures the performance of the required and specified Contract Work as well as achieving the quality level requirements specified in the draft Contract. The major activities and milestones of our proposal for the Construction of Fitch Park ASR Wells 5 and 6 are summarized on Table 5-1 in this section of the proposal. In addition, these major activities and milestones are summarized on our preliminary construction schedule (commencing on August 1, 2019) located in this section of the proposal. Finally, our prior contract construction experience of similar well drilling, construction, development and testing projects is attached in this section of the proposal.

Zim Industries, Inc. has extensive experience of completing similar well drilling, construction, development and testing projects to the Fitch Park ASR Well 5 and 6 well drilling project proposed. In particular, Zim Industries, Inc. completed the Groundwater Replenishment Project Injection Wells Phase 1 project for Monterey One Water in December of 2017. This project included completing one deep injection well with 24-inch diameter casing and screen to 830 feet below ground surface. The pilot hole was drilled to 1,000 feet below ground surface. The 36-inch diameter conductor casing was installed to 133 feet below ground surface. We are well aware of the fact that the existing formation between 90 feet and 133 feet below ground surface in this geographic area is unstable and the existing formation at this depth in wells 5 and 6 in the Fitch Park ASR well drilling project will need to be stabilized. This stabilization can be achieved with the correct drilling fluid system. Zim Industries, Inc. plans on utilizing the drilling fluid system summarized by Baroid industrial Drilling Products in this section of the proposal.

Zim Industries, Inc. also completed the ASR-4 Well Completion project for Monterey Peninsula Water Management District in January of 2014. This project included completing one deep injection well with 22-inch and 20-inch diameter casing and screen to 1000 feet below ground surface. The pilot hole was drilled to 1,030 feet below ground surface. The 36-inch diameter conductor casing was installed to 55 feet below ground surface.

Zim Industries, Inc. also completed the Fitch School ASR Test Well Completion project for Monterey Peninsula Water Management District in January of 2011. This project included completing one deep injection well with 22-inch and 20-inch diameter casing and screen to 950 feet below ground surface. The pilot hole was drilled to 990 feet below ground surface. The 34-inch diameter conductor casing was installed to 55 feet below ground surface.

Zim Industries, Inc. also completed the Fitch School ASR-2 Test Well Completion project for Monterey Peninsula Water Management District in August of 2011. This project included completing one deep injection well with 22-inch and 20-inch diameter casing and screen to 950 feet below ground surface. The pilot hole was drilled to 990 feet below ground surface. The 34-inch diameter conductor casing was installed to 55 feet below ground surface.

Zim Industries, Inc. also completed the Santa Margarita Test injection – well No. 2 project for Monterey Peninsula Water Management District in April of 2008. This project included completing one deep injection well with 22-inch and 20-inch diameter casing and screen to 779 feet below ground surface. The pilot hole was drilled to 900 feet below ground surface. The 34-inch diameter conductor casing was installed to 55 feet below ground surface.

Zim Industries, Inc. will complete the Contract Work of the Fitch Park ASR Well 5 and 6 well drilling project in accordance with the specifications just as these previous referenced ASR wells in Monterey were completed in accordance with their specifications. Wells 5 and 6 will be drilled, completed, developed and tested as summarized in the major activities and milestones on Table 5-1 and these items will be completed as summarized on our preliminary construction schedule (commencing on August 1, 2019) located in this section of the proposal.

Work Approach and Scheduling

- I. Allocation of available resources (personnel and equipment) to be used to perform the work on this project.
 - A. Personnel:
 - 1) Management team as described in Section 2 – Key Personnel and Qualifications will be assigned to this project should Zim Industries, Inc. be awarded this Project.
 - 2) Project Manager – Brian P. Zimmerer will be assigned to this project.
 - 3) On-Site Project Superintendent – Victor Chavez will be assigned to this project.
 - 4) On-Site Drilling Crews to drill, zone test, construct and swab develop well.
 - a) Two drilling crews will be assigned to this project.
 - b) Each drilling crew will consist of 1 driller and 2 driller helpers.
 - c) Each drilling crew will work a 12 hour daily work shift.
 - d) Drilling operations will be performed 24 hours per day until project is complete.
 - 5) On-Site Pump Crew to set and pull test pump.
 - a) One pump crew will be assigned to this project.
 - b) This pump crew will consist of 1 pump installer and 2 pump installer helpers.
 - c) This pump crew will work up to a 12 hour daily work shift.
 - 6) On-Site Test Engine Operator to pump develop and test pump the well.
 - a) One to Two test engine operators will be assigned to this project.
 - b) Each test engine operator will work up to a 12 hour daily work shift.
 - c) During the constant rate test or any other pump development or pump testing operations requiring continuous pumping two test engine operators will work consecutive alternating shifts.
 - B. Equipment: See the attached equipment available to be assigned to this project by Zim Industries, Inc. in our Statement of Contractor Qualifications and Capabilities at the end of Section 1; and the detailed equipment summary of our Challenger 360 and Challenger 320 drilling rigs attached in this section. In addition, a detailed listing of all our available equipment is attached in Section 5 – Financial Information. Zim Industries, Inc. has several drilling rigs and support equipment available that are suitable for the required work specified in this project.

Proposed Drilling Methodologies

Desired drilling method is reverse rotary, with fluid control systems (mud) as needed to be dictated by borehole condition and per the direction of the District's Representatives. Conventional rotary capabilities are available as needed. Zim performs a plumbness test each 100 L.F. and maintains plumbness under $\frac{1}{2}$ degrees. Plumbness is corrected if it exceeds $\frac{1}{2}$ degree at any of the testing intervals that are performed with a 3 degree alignment tool. Zim pumps the gravel filter pack through a 2 $\frac{3}{8}$ " tremie pipe while swabbing with the drill pipe and double disc swabbing tool as described in the Johnson Groundwater and Wells book. After the gravel pack is in place with any necessary seals have matured, Zim then airlift swabs the well until relatively clean and developed as per the direction of the District's Hydrogeologist and Engineering Representatives. Zim will then perform the pump development and pump testing as per the direction of the District. Zim has in its fleet of test pumps, many choices with capacity ranges starting below 100 G.P.M. and including capacity to pump 4000 G.P.M. from 1000' depth. Zim has test engine capacity to pump 100 Hp. to 1700 Hp. with several different engines to choose from.

Zim Industries, Inc. has the personnel and equipment to complete this well construction project. Zim owns and operates several drilling rigs that are capable of drilling 2500' boreholes up to 30" or larger diameter. Zim will employ reverse rotary equipment with 60,000 Lbs. of 15 $\frac{3}{4}$ " diameter x 6" bore drill collars and 9 $\frac{5}{8}$ " bottleneck tool joint drill pipe. The rigidity and close wall contact of the drill tools insures well bore without doglegs and the weight on the bit insures acceptable penetration rates. I wish to make the point that well drillers using smaller drill pipe and drill collars and fast drilling are not noted for dogleg free holes. Although it is possible to cut the holes with smaller diameter drill pipe and lighter drill collars, it is not probable that they will be plumb and free of doglegs.

Unlike many other water well drilling contractors, Zim uses large, heavy weight drill collars above the bit to drill the pilot hole and we do not apply more than 5,000 lbs. to the bit so it will have a plumb bob effect to keep the bit drilling straight and plumb. Zim's practice of using a heavy tool string and limiting the weight application creates a slower penetration rate on the drilling of the pilot hole. However, once the pilot hole has been drilled straight and plumb, the weight can be added to the reamer. Normal penetration rates will occur because the reamer will follow the pilot hole and the end product will be straight and plumb. Zim Industries does not seek time extensions to drill water wells using this process.

Also, Zim always provides large pits to give the fines being deposited with the cuttings at least 30 minutes to settle out in the pits before water re-enters the well bore. The smallest pit capacity should be two (2) pits 30' in length and 5' in

depth. Zim has more pits available if specified by the City. When a project site is too small for two pits to be utilized, then mechanical sand removal is necessary to reach the desired results. The fluid will then not build an excessively thick wall cake which is difficult to remove; creates excessive airlift swab development hours; and may permanently harm the well.

Compliance Statements

Zim Industries, Inc. has a reputation of completing wells to the satisfaction of the customer and completing our projects on time and on budget. We believe that due to our experience of drilling hundreds of deep municipal water wells; our impeccably maintained and extensive variety of drilling equipment; and our experienced work force, Zim Industries drills the highest quality water wells in the industry.

As with most of our projects, there is a Bid Schedule with Unit Pricing for specific Line Items. Most budget changes are due to changes from bid quantities only and could result in an increase or a savings to the District. Therefore, most price differences from budget to actual billing are due to line item quantity adjustments as directed by the District. We also have a reputation for not requesting Change Orders and Time Extensions for every little matter that comes up in a project. Change Orders are only requested for quantity adjustments (could be an increase or a decrease) or for material changes to the specifications.

F. Listing of Contractor's Equipment Available

Water Well Drilling Equipment:

- . (Two) 360 Challenger Drilling Rigs equipped with 9 5/8" O.D. drill pipe with 12" O.D. DI-12 tool joints & 16" drill collars, capable of drilling a 42" diameter hole to a depth of 3,000 feet and a weight capacity of 200,000 lbs.
- . (Four) 320 Challenger Drilling Rigs equipped with 7" O.D. drill pipe with 8 1/2" O.D. I.F. tool joints & 12" drill collars, capable of drilling a 36" diameter hole to a depth of 2,000 feet and a weight capacity of 160,000 lbs.
- . (One) 3000 Midway Drilling Rig equipped with 8 5/8" O.D. drill pipe with 11" O.D. hacker tool joints & 16" drill collars, capable of drilling a 36" diameter hole to a depth of 1,500 feet and a weight capacity of 140,000 lbs.
- . (One) Ideco Rambler Drilling Rig equipped with 7" O.D. drill pipe with 8 1/2" O.D. I.F. tool joints & 16" drill collars, capable of drilling a 32" diameter hole to a depth of 1,750 feet and a weight capacity of 140,000 lbs.
- . (One) 128 Challenger Drilling Rig equipped with 7" O.D. drill pipe with 8 1/2" O.D. I.F. tool joints & 16" drill collars, capable of drilling a 32" diameter hole to a depth of 1,200 feet and a weight capacity of 90,000 lbs.
- . (One) Howard-Turner Drilling Rig equipped with 7" O.D. drill pipe with 8 1/2" O.D. I.F. tool joints & 16" drill collars, capable of drilling a 32" diameter hole to a depth of 1,200 feet and a weight capacity of 100,000 lbs.
- . (Two) JED A Drilling Rigs equipped with 6" O.D. drill pipe with 7 1/2" O.D. I.F. tool joints & 10" drill collars, capable of drilling a 28" diameter hole to a depth of 700 feet and a weight capacity of 60,000 lbs.
- . (One) 5200-D Howard-Turner Drilling Rig equipped with 4" O.D. drill pipe with 4 1/2" O.D. I.F. tool joints & 6" drill collars, capable of drilling a 12" diameter hole to a depth of 1,500 feet and a weight capacity of 15,000 lbs.

Water Well Test Pump Equipment:

- . (Ten) Pump Rigs capable of pulling and setting pumps weighing up to 75 tons.
- . (Ten) Test Engines capable of generating up to 1,750 H.P.
- . Test Pumps of various sizes ranging from 25 G.P.M. up to 7,000 G.P.M.

Typical Drilling Equipment for large diameter reverse rotary well drilling projects:

Challenger 360 drilling rig, 200,000 Lb. working load draw works, derrick and rotary table.

3500' of 9 5/8" O.D. tool Jt. drill pipe.

Four each 30' long 15 3/4" O.D. x 6" bore drill collars (60,000 Lbs. applicable weight). More available if needed

Two 17 1/2" drill collar stabilizers.

950 X 350 air compressor. Others available if needed

Three degree slope indicator

Weight indicator

Drilling recorder

Mud pressure gauge

Mud balance, viscosity equipment, and fluid loss measuring equipment including press & pads; sand content measuring equipment and all additional equipment needed to control drilling fluid

Desander

Shale shaker

Backhoe

Forklift

Genset

Bits anticipated, long tooth button roller bits, either chisel tooth bit for soft formation or short round small buttons for hard formations

Expected rotary R.P.M. 50 to 150 R.P.M. as formation dictates

Typical Development Equipment for large diameter wells:

Will recommend airlift swabbing with Challenger 360 drilling rig described above.

Available as needed: B.E. 36-L or 26-L Cable tool development rigs.

400 Horsepower available.

Rated mast capacity of 75,000 Lbs.

2000' spooling capacity of 3/4" cable.

Typical Test Pump Equipment Description for large diameter wells:

Line-shaft turbine pump equipment

Up to 750 Hp gear drive as required.

12", 10" or 8" pump head as required.

1000' of 12", 10" or 8" X 4" X 2 7/16" column tube & shaft as required.

12", 10" or 8" bowl assembly as required. The actual bowl will be selected after actual pumping requirements are determined.

Test engine (CAT or Detroit) with a capacity starting at 100 Hp and ranging up to 1750 Hp.

Zim owns four 50 ton camelback pump service rigs capable of installing & removing test pump

Zim's test pump fleet ranges from small submersible capacity (50 GPM) up to large line-shaft turbine capacity (4500

GPM from a depth of 1000 feet). Bowl assemblies of many sizes and capabilities, and the capability in Zim's own shop to assemble virtually any bowl assembly required.

Our equipment is our lifeblood and we take good care of it. We maintain a rigorous written maintenance program on all of our equipment. Scheduled equipment maintenance is controlled through a weekly program of reporting mileage and hours for all of our equipment. We have a permanent staff of four experienced mechanics and an inventory of critical spare parts to support this program. We also maintain a substantial stock of parts and equipment components, including engines, rotary tables, mud pumps, gear boxes, and other similar equipment.

In the event of a breakdown, everyone involved participates in solving the problem in an efficient and prompt manner. Zim can make on-site repairs with our drillers/mechanics or send other qualified mechanics from our headquarters.

G. General Description to the approach to scheduling and accomplishing the work

Zim has drilled three (3) wells of different diameters in the area around Salt Lake City. The large diameter of the holes rules out the use of oilfield type of blow out preventers, therefore; Zim Industries will design and build blow out prevention and bypass fluid entrance valves below the blow out shut in. This will give time to adjust the fluid weight to correct any unexpected spike in artesian head. Zim has experienced shut in head of one completed well of about 75 lbs. Zim was able to complete the well with weighted Bentonite with Barite as the weight agent. The anticipated procedure is as follows:

- a) Add four (4) feet of material to the location to gain altitude; install 80 feet of large diameter conductor grouted in hole 6" larger than pipe O.D. using the auger method.
- b) Install the emergency shut off head and plumb in the above ground drilling tanks and bypass line.
- c) Set up Challenger 360 Drill Rig and plumb in.
- d) Mix Bentonite and Barite to achieve a mud weight of 11 lbs. per gallon.
- e) Proceed with drilling a 17 ½" pilot hole, testing the mud weight often to keep the weight at 11 lbs. or heavier if hole encounters water heads that 11 lbs. mud will not hold.
- f) It may be desirable if hole stability problems occur to install & grout in a deeper conductor such as 200 feet +/-.
- g) Proceed with the pilot hole to complete depth and perform E-Log suite.
- h) Ream the hole to the desired diameter; install screen and casing; gravel pack; and install any required seals.
- i) Airlift swab the well until the mud wall cake is broken down sufficiently that a high capacity test pump can complete the wall cake removal.
- j) Install a high capacity test pump and surge develop the well until no increase in specific capacity can be achieved.
- k) Step test the well at three (3) rates selected after the development information is known.
- l) Determine well efficiency. If efficiency is below 75 to 80%, a cable tool double swab may be necessary to further to do further development. The necessity for cable tool development should be determined before it is performed. It is Zim's opinion that cable tool development is very effective in some wells, but only after all wall cake has been removed by airlift swabbing with the rig and pump development has been completed.

H. Identify work anticipated to be performed by subcontractors

Proposed subcontractor selection plan

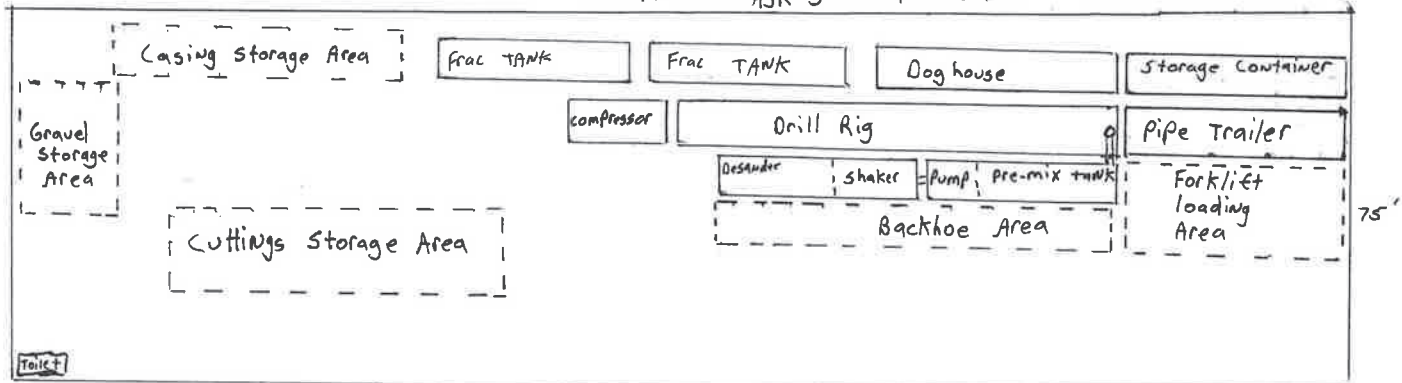
Zim Industries, Inc. will select subcontractors based on a combination of qualifications and price and shall not select subcontractors based on price alone. Following are the procedures that Zim Industries, Inc. will use to select our subcontractors:

- In making our subcontractor selections, Zim will take into account the estimated value, the scope, the complexity and the nature of the professional services to be rendered by our subcontractors
- Subcontractors must demonstrate compliance with the design requirements
- Subcontractors will submit their qualifications to Zim Industries, Inc. and must demonstrate that they have a record of accuracy and dependability
- Subcontractors will submit their financial capacity to Zim Industries, Inc.
- Subcontractors must demonstrate compliance with Zim Industries, Inc's and the District's project schedule

Based on the above criteria, Zim Industries, Inc. will pre-qualify all potential subcontractors. Zim Industries, Inc. does not anticipate using any subcontractors for the actual well drilling process. Zim only anticipates subcontracting for geophysical and video logging services as required by the specifications and for auger drilling for the conductor. Typically, the price difference between these types of specialty service companies is only a few percentage points. Therefore, after a subcontractor has been pre-approved, price is only a small evaluation criteria for selecting subcontractors. Once a subcontractor is pre-qualified, ability to comply with the project schedule will be the most important factor in the final selection of the subcontractor. Time is of the essence for this type of service, so project scheduling will then be a substantial portion of the evaluation criteria.

CORRECTED LOCATION
DAM, TO
TECHNICAL PROPOSAL
DRUM RIG
LAYOUTS
ASR 5 1/2

280' ASR-5 work area

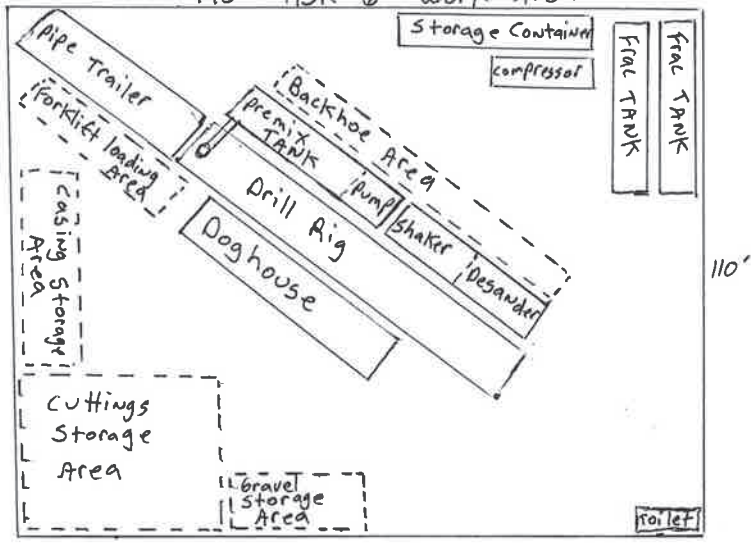


Gen. Jim Moore Blvd.

←
1 inch = 20ft



145' ASR-6 work Area



1" = 20ft



Gen Jim Moore Blvd

EQUIPMENT TO BE USED

1. Challenger 360 drill rig, 200,000 L.B. working load draw works, derrick and rotary table.
2. 2000' of 9 5/8 O.D. tool Jt. drill pipe
3. Thirty-three Ft. long 15 3/4 O.D. x 6" bore drill collars (50,000Lbs. Applicable Weight)
4. Two 17 1/2" drill string stabilizers
5. Three degree slope indicator
6. 950 x 350 compressor
7. 2 3/8 treme line to treme gravel
8. Gravel injection pump
9. All necessary support equipment
10. 12" x 2 3/8" x 3 1/2" test pump with various bowl assemblies as needed
11. Six test pump engines starting at 300 Hp up to 1700 Hp

DRILL RIG CHALLENGER 320

DRILLING CAPACITY

Maximum hook load 200,000 lbs.

DRIVE TRAIN

M11 Cummins

SWEVEL

Ideal 300 ton

HYDRAULIC JACKS

Front and Rear

MAST

85' Tall Derrick

ROTARY TABLE

18" Howard Table

PORTABLE PIT

(2) 10,000 Gallon above ground tanks. Measurements are 8' wide, 40' long, & 4' tall.

BACKHOE

580 L Case

AIR COMPRESSOR

Atlos Capco 825 CFM 150 PSI

FORKLIFT

JCB 8,000 lbs lift

SHACKERS

(2) 4' by 5' Derrick with electric motors

GENORATOR

50 KW 230 volt

DESANDER

(8) 8" OD Picenco Sand Master 6-05 desander cones.

CENTRIFICAL PUMP

This pump will be used for mixing mud and running the desander unit. 5 x 6 Berkley Enclosed Impeller.

GRAVEL PUMP

5 x 6 Harrisburg open centrifical pump.

CHALLENGER TRAILER MODEL (3T 320-150-64)

DRILLING CAPACITY

Maximum hook load capacity 150,000 lbs.
using 6 lines

Depth range depends on drilling conditions
and fluid method

Optional:

With high capacity drawworks and telescoping
mast rig is rated at 200,000 with 8 lines

TRAILER

Rear Bogie double point spring 66,000 lb. with
11:00 x 20 tires

Maximum GVW 3 axle 86,000 lb.

DRIVE TRAIN

Engine — 320 H.P. @ 1800 RPM Detroit Diesel
8V92N or equivalent

Optional:

Engine may vary depending on options

Transmission Allison CLT 750

May vary with engine options

DRAWWORKS

Double drum stacked drawworks

Hoisting — 10½" x 24"

Kelly — 10½" x 21½"

Maximum single line pull 28,000 lbs.

Drum clutches — 2 plate 21"

Drum brakes — 8" x 32"

Optional:

Sandline drum 7½" x 27½"

Maximum single line pull 9,000 lbs.

Spooling capacity ½" — 5,000

Heavy duty drawworks with 24" clutch oil bath chain
drive and independent catshaft with jaw clutch

MAST

Challenger Model 150-64

Hookload 150,000 API rated

Height 64' (top of rotary table to bottom of crown sheaves)

17" crown sheaves are grooved for 7/8" line

6 lines

Two double acting triple stage rams

Ladder safety climbing device

Optional:

Height 59', 70' or 84' telescoping

Speed range of 5 to 250 RPM

Optional:

Removable rotary table

SWIVEL

HYDRAULIC LEVELING JACKS WITH MECHANICAL LOCKS

2 Front

2 Rear

ROAD DIMENSIONS

Length 74' (with 64' Mast)

Height 14' (13'6" by removing components)

Width 8' depending on equipment

OPERATING EQUIPMENT

One-3 sheave 17", 75 ton hook-hoisting line and one 3
sheave 17" ton block integral with heavy duty swivel
Kelly line

Wireline 7/8"

Kelly 4¼" x 38' sq. — Typical

Kelly drive bushing

Tongs — Manual SLF

Walkways

Stairways

Racking Board

Service Winch

Derrick lights

Racking sub structure

Tool boxes

Kelly hose

Standpipe

Weight indicators

OPTIONAL EQUIPMENT

Raised sub structure 7'6" ground to rotary table

Handling equipment

Drill pipe

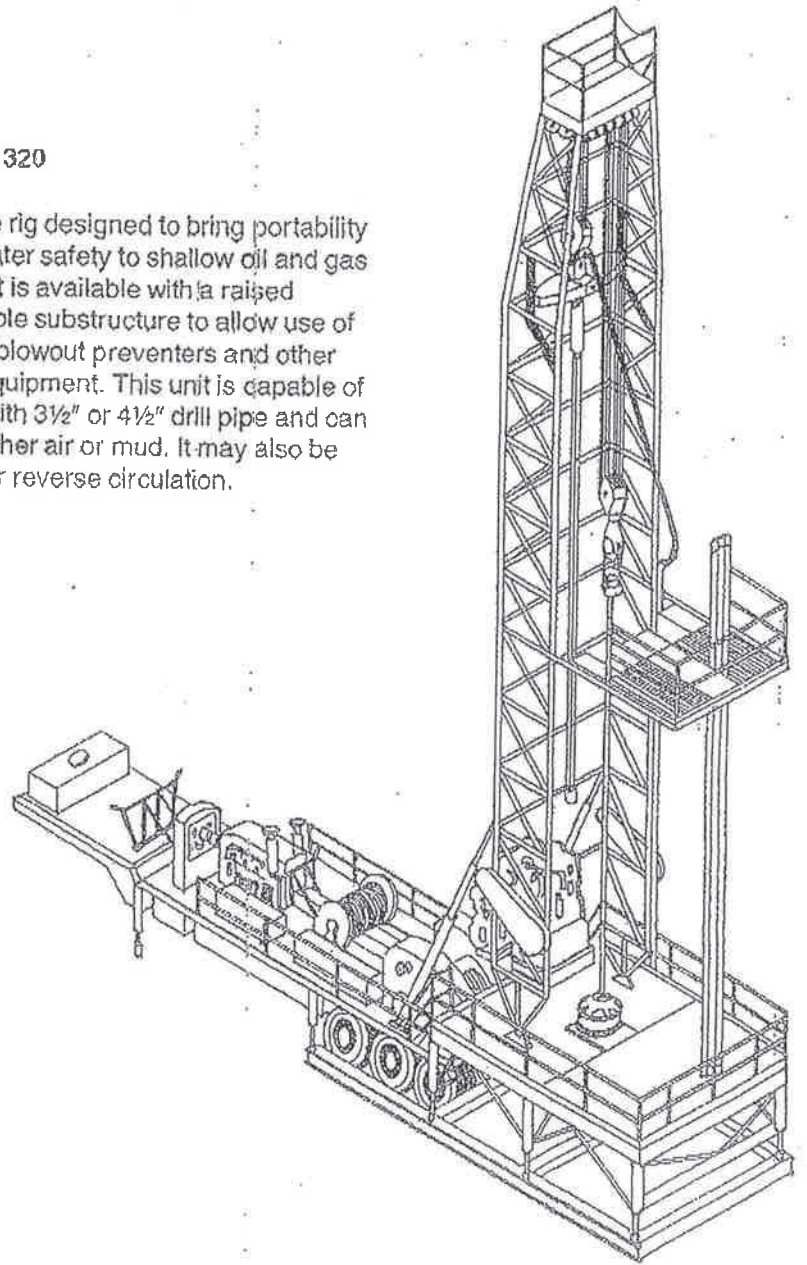
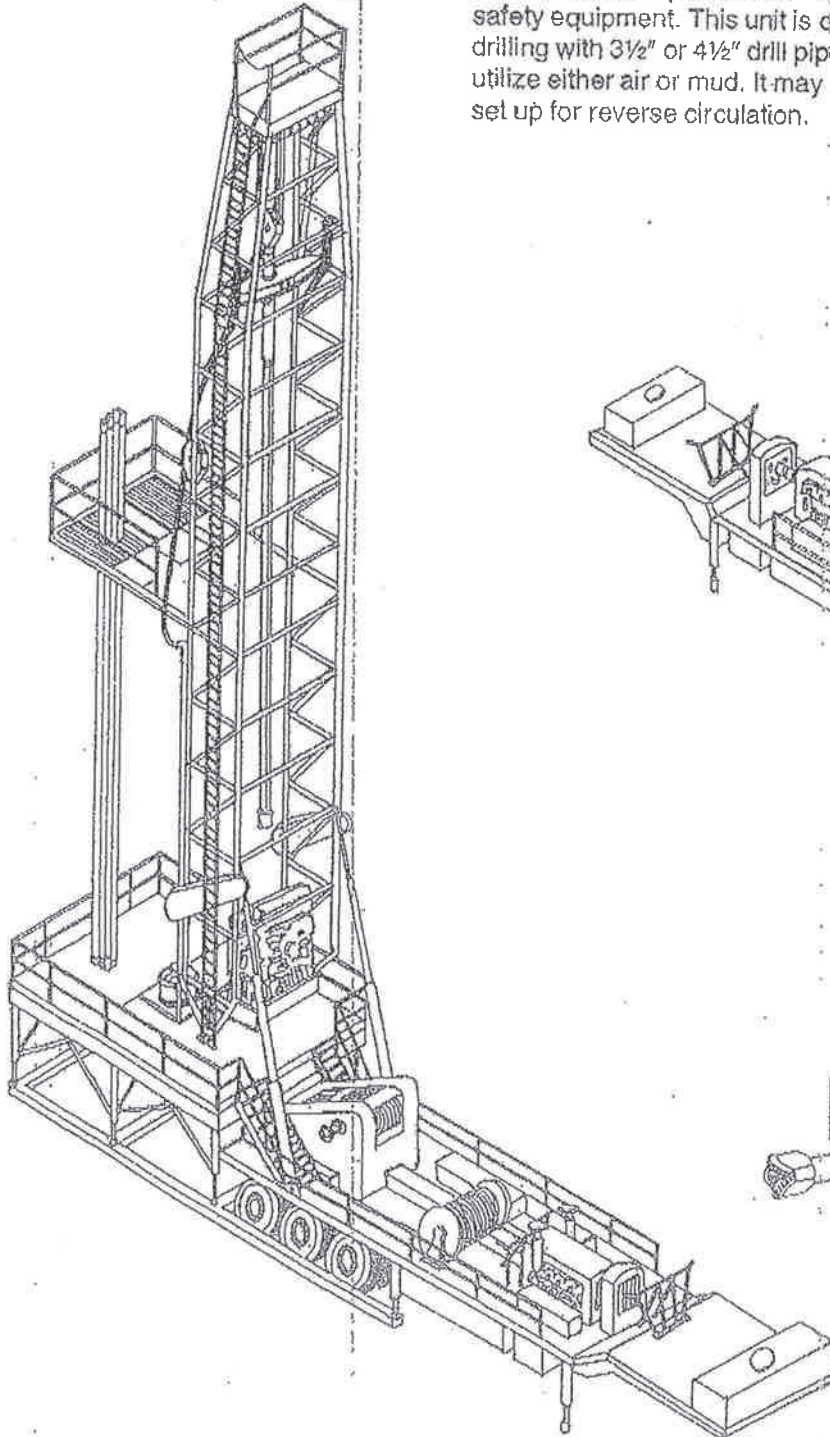
Drill collars

Injection pump

Parmac hydromatic brake

MODEL 320

A unique rig designed to bring portability and greater safety to shallow oil and gas drilling. It is available with a raised detachable substructure to allow use of modern blowout preventers and other safety equipment. This unit is capable of drilling with 3½" or 4½" drill pipe and can utilize either air or mud. It may also be set up for reverse circulation.



Challenger

Rig & Manufacturing, Inc.

P.O. Box 3984

Odessa, Texas 79760

(915) 563-0951

Challenger ODS Telex 74-5435

A Division of  Manufacturing

FIRM NAME Zim Industries

Brief Project Description _____

Date Furnished _____

(4) Owner's Name and Address _____

Brief Project Description _____

Date Furnished _____

B. Personnel and Equipment

(1) List name of Driller(s) and years of experience with similar projects:
Manuel Lopez 9/27/99 hired dates
Juan DeLaCruz 1/23/02 " "

(2) List equipment proposed to complete work specified herein:

a. Rig
(i) Make Challenger 320
(ii) Model _____

b. Mast
(i) Height 85'
(ii) Capacity 200,000
(iii) Maximum Casing Length 43'

c. Air Compressor
(i) Make Atlas Copco
(ii) Model 825
(iii) Displacement ^{cfm}/_{gpm} 825
(iv) Head (psi) 150

d. Drill Pipe
(i) Diameter and Lengths 6" x 40' tool joint

SUBMIT THIS SHEET AS PART OF YOUR BID

FIRM NAME Zim Industries

(ii) Weight per foot _____

(iii) Connection Type Tool Joint

e. Drill Collars

(i) Length per Section 10" x 30"

(ii) Total Length 60

(iii) Weight per Foot 150 lbs/ft

I hereby certify under penalty of perjury that the above statements are true.

Bid and Certification Submitted 7/31/12
Date

Signature Robert J. Zimmerman
Authorized Representative

Robert J. Zimmerman
Print or Type Name

Title V-P / Secretary

SUBMIT THIS SHEET AS PART OF YOUR BID

Available Equipment to Perform Job

1. Two "Challenger 360 Drill Rigs" rated at 200,000 Lbs. working load.
2. 3,500 Ft. of 9 5/8" O.D. bottleneck drill pipe.
3. 5 Drill Collars, 15 3/4" O.D. with 6" bore and 4 Drill Collars, 13 3/8" O.D. with 6" bore.
4. 17 1/2" Stabilizers to keep pilot hole plumb & free of doglegs
5. Three degree slope indicator on each rig.
6. Each rig has Halliburton wireline measuring devices.
7. Portable drill pits of various sizes, capacity will be sufficient to properly settle silts out of circulation water.
8. Mud scales, Viscosity cup & funnel filter press and sand content of circulating fluid measuring device.
9. 2 3/8" Upset oil field pipe used as a Treme for gravel pack & Seal installation.
10. Pipe elevators for 18 5/8" O.D. casing or any other size required
11. Gravel injection pump
12. Backhoe
13. Forklift
14. Tool house - crew quarters - dog house

Test Pump

1. Choice of 6 Engines Ranging from 400 Hp to 1700 Hp.
2. 750 Hp gear drive and flex shaft
3. 12" / 10" / or 8" pump head
4. 1000' of 12" / 10" / or 8" pump discharge column.
5. 1000' of 3 1/2" x 2 3/8" oil tube & shaft
6. Various pump bowl assemblies to pump up to 3,500 GPM from the anticipated pump setting, plus we will assemble whatever bowl capacity is needed.
7. Discharge orifice and meter measuring devices.
8. Discharge pipeline as required.

CHALLENGER 360 DRILL RIG

1. Challenger 360 drill rig, 200,000 L.B. working load draw works, derrick and rotary table
2. 2000' of 9 5/8 O.D. tool Jt. drill pipe
3. Thirty-three Ft. long 15 3/4 O.D. x 6" bore drill collars (50,000 Lbs. Applicable Weight)
4. Two 17 1/2" drill string stabilizers
5. Three degree slope indicator
6. 950 x 350 compressor
7. 2 3/8 treme line to treme gravel
8. Gravel injection pump
9. All necessary support equipment
10. 6" x 2 3/8" x 3 1/2" test pump with various bowl assemblies as needed
11. Six test pump engines starting at 300 Hp up to 1700 Hp

IDECO RIG

1. Ideco H 35 Rambler Drill Rig S/N #B1R435; 120,000 Lb. working load rating
2. (1600') of 7" OD x 20' Long, 6 5/8" IF Drilling Pipe
3. (2) 10" OD x 6" ID x 30' Drill Collars and (1) 15" Square x 6" ID x 30' Drill Collar (Total = 18,000 Lbs.)
4. Three Degree E.C. Slope Indicator
5. I.R. 825 CFM x 150 PSI Air Compressor
6. Cat RC 60 6000 Lb. Forklift
7. Hercules Diesel w/ 4 x 3 Mission Gravel Pump
8. Case 580K Backhoe
9. Lincoln 250 Diesel Welder
10. Onan 15KW Gen. Set

JED-A HOLEMASTER DRILL 1973

VIN #109f450 (Reverse Rotary)

Capacity 1500Ft. Using 3 1/2" Drill Pipe

Line Capacity 5/8 x 550Ft.

Brakes Doubles

Mast 47Ft. 4 inches clear working space (60,000Lb. Capacity)

Drill Pipe 7" O.D. x 6" I.D. X 20Ft. Long tool jointends

Collars (3) 10" O.D. x 5 1/2" I.D. x 15Ft. Long

Compressor 600 CFM x 125PSI I.R.

Generators (2) 7KW

Draw Works 15,000 Lbs. per line



ZIM INDUSTRIES, INC.

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Ph. (559) 834-1551 • FAX (559) 834-5156
Email: zimindustries@attitude.com
www.zimindustries.com

12-Apr-04

JED-A HOLEMASTER DRILL 1973

VIN #109f450 (Reverse Rotary)

Capacity 1500Ft. Using 3 1/2" Drill Pipe

Line Capacity 5/8 x 550Ft.

Brakes Doubles

Mast 47Ft. 4 inches clear working space (60,000Lb. Capacity)

Drill Pipe 7" O.D. x 6" I.D. X 20Ft. Long tool jointends

Collars (3) 10" O.D. x 5 1/2" I.D. x 15Ft. Long

Compressor 600 CFM x 125PSI I.R.

Generators (2) 7KW

Draw Works 15,000 Lbs. per line

A1

PROPOSAL FORM 5

**PRELIMINARY PROJECT SCHEDULE, SCHEDULED CONSTRUCTION DATE AND
SCHEDULED ACCEPTANCE DATE**

The Proposer shall submit a preliminary Project schedule with the Proposal that includes important construction activities and milestones from issuance of the Notice to Proceed through final completion. This preliminary Project schedule shall be submitted in both written and electronic formats. The level of detail shall be in summary level for major procurement and construction activities. Major milestones throughout the construction period shall be included.

The preliminary Project schedule shall consist of, but not be limited to, the following:

- (i) Important procurement activities and milestones
- (ii) Important construction activities and milestones
- (iii) Important commissioning and testing milestones
- (iv) It shall indicate the sequence of Work and the time of starting and completing each part.

In addition, the Proposer shall summarize and provide a list of proposed major milestones and completion dates including, but not limited to:

- 5.2.3.2. Issuance of Notice to Proceed
- 5.2.3.3. Expected delivery of all materials and equipment
- 5.2.3.4. Date of construction commencement
- 5.2.3.5. Completion of major structures
- 5.2.3.6. Commissioning and functional testing commencement
- 5.2.3.7. Substantial Completion Date
- 5.2.3.8. Acceptance test
- 5.2.3.9. Date of acceptance
- 5.2.3.10. Date of Completion and readiness for final payment

The Proposer shall use the following format to provide this information:

**Monterey Peninsula Water Supply Project
Request for Proposals for the Construction of Fitch Park ASR Wells 5 and 6**

TABLE 5-1 MAJOR ACTIVITIES AND MILESTONES ¹		
ACTIVITY NUMBER	ACTIVITY/MILESTONE	DATE ²
	See Attached Major Activities and milestones	

Zim Industries, Inc
Name of Proposer

Curt B. Zimmerer
Name of Designated Signatory

Curt B. Zimmerer
Signature

President
Title

Footnotes:

¹ List each major activity and milestone separately.

² Indicate the end of activity or date milestone achieved.

**Monterey Peninsula Water Supply Project
Request for Proposals for the Construction of Fitch Park ASR Wells 5 and 6**

TABLE 5-1 MAJOR ACTIVITIES AND MILESTONES1

ACTIVITY NUMBER	ACTIVITY/MILESTONE	DATE2
1	RFP and draft Contract issued to Respondents	September 29, 2018
2	RFP Pre-Proposal meeting	October 30, 2018, 10:00 AM PST
3	Written questions and comments on RFP and draft Contract due	November 6, 2018, 4:00 PM PST
4	CAWC distributes answers to written questions	November 9, 2018, 5:00 PM PST
5	Project Proposals due	November 15, 2018, 3:00 PM PST
6	Selection of preferred Proposer(s)	November 23, 2018
7	Final draft Contract and all Proposals to Governance Committee for recommendation	November 26, 2018
8	Governance Committee meeting	TBD November 2018
9	Contract execution	TBD December 2018
10	Obtain well drilling permits ASR-Well 5 and 6	TBD December 2018
11	Submit submittals for approval	TBD December 2018
12	Receive approved submittals	June 30, 2019
13	Pre-construction meeting	July 29, 2019
14	Issuance of Notice To Proceed	August 1, 2019
15	Commence well construction ASR-Well 5	August 1, 2019
16	Mobilization ASR-Well 5	August 16, 2019
17	Install sound panels ASR-Well 5	August 9, 2019
18	Delivery of conductor casing ASR-Well 5	August 5, 2019
19	Install conductor casing ASR-Well 5	August 6, 2019
20	Drill pilot hole and e-log ASR-Well 5	August 27, 2019
21	Receive well design ASR-Well 5	August 28, 2019
22	Order casing materials ASR-Well 5	August 28, 2019
23	Ream borehole & caliper survey ASR-Well 5	September 5, 2019
24	Receive well casing materials ASR-Well 5	September 5, 2019
25	Install casing & tubing ASR-Well 5	September 6, 2019
26	Install gravel pack ASR-Well 5	September 7, 2019
27	Install grout seal ASR-Well 5	September 10, 2019
28	Substantial Completion of ASR-Well 5	September 10, 2019
29	Mechanical Swab development ASR-Well 5	September 17, 2019
30	Remove drilling rig equipment ASR-Well 5	September 23, 2019
31	Install test pump & discharge line ASR-Well 5	September 26, 2019
32	Test pump development & testing ASR-Well 5	October 10, 2019
33	Downhole velocity surveys ASR-Well 5	October 11, 2019
34	Disinfection ASR-Well 5	October 14, 2019
35	Remove test pump equipment ASR-Well 5	October 16, 2019
36	Plumbness and alignment test ASR-Well 5	October 17, 2019
37	Well video ASR-Well 5	October 18, 2019
38	Clean-up and cuttings disposal ASR-Well 5	October 24, 2019
39	Receive final pump design for ASR-Well 5	October 14, 2019
40	Well head completion ASR-Well 5	October 29, 2019
41	Order pump and motor for ASR-Well 5	October 14, 2019
42	Receive pump and motor ASR-Well 5	October 30, 2019
43	Install new pump & motor ASR-Well 5	November 5, 2019
44	Commissioning & functional testing ASR-Well 5	November 5, 2019
45	Final completion ASR-Well 5	November 5, 2019
46	Acceptance test ASR-Well 5	November 5, 2019
47	Date of acceptance ASR-Well 5	November 5, 2019
48	Notice of Completion Date for ASR-Well 5 for final payment	November 5, 2019

PF5-2 (continued)

**Monterey Peninsula Water Supply Project
Request for Proposals for the Construction of Fitch Park ASR Wells 5 and 6**

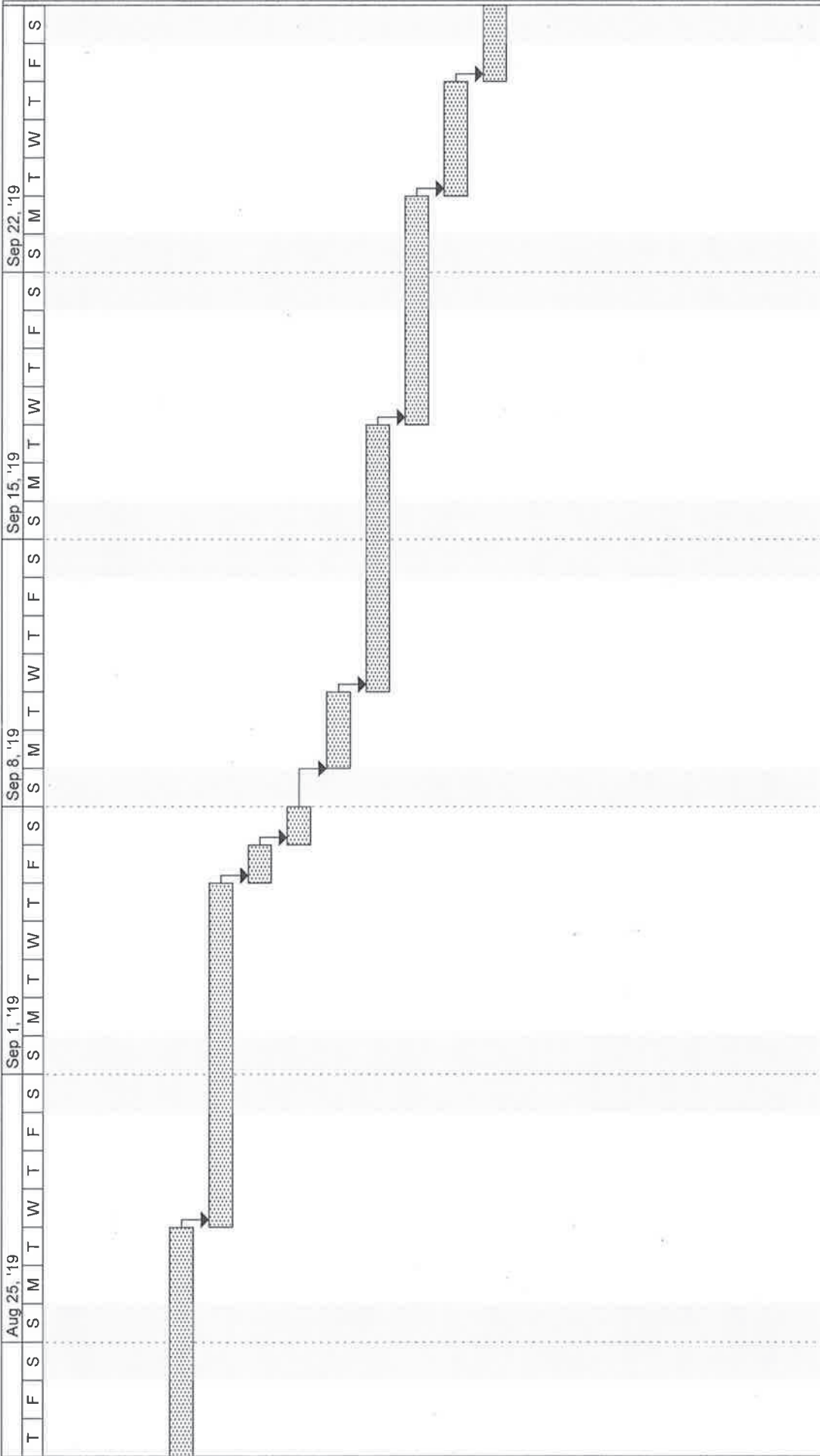
TABLE 5-1 MAJOR ACTIVITIES AND MILESTONES¹

ACTIVITY NUMBER	ACTIVITY/MILESTONE	DATE²
49	Commence well construction ASR-Well 6	September 23, 2019
50	Mobilization ASR-Well 6	October 4, 2019
51	Install sound panels ASR-Well 6	October 4, 2019
52	Delivery of conductor casing ASR-Well 6	September 27, 2019
53	Install conductor casing ASR-Well 6	September 30, 2019
54	Drill pilot hole and e-log ASR-Well 6	October 15, 2019
55	Receive well design ASR-Well 6	October 16, 2019
56	Order casing materials ASR-Well 6	October 16, 2019
57	Ream borehole & caliper survey ASR-Well 6	October 24, 2019
58	Receive well casing materials ASR-Well 6	October 24, 2019
59	Install casing & tubing ASR-Well 6	October 25, 2019
60	Install gravel pack ASR-Well 6	October 28, 2019
61	Install grout seal ASR-Well 6	October 30, 2019
62	Substantial Completion of ASR-Well 6	October 30, 2019
63	Mechanical Swab development ASR-Well 6	November 6, 2019
64	Remove drilling rig equipment ASR-Well 6	November 12, 2019
65	Install test pump & discharge line ASR-Well 6	November 15, 2019
66	Test pump development & testing ASR-Well 6	November 29, 2019
67	Downhole velocity surveys ASR-Well 6	December 2, 2019
68	Disinfection ASR-Well 6	December 3, 2019
69	Remove test pump equipment ASR-Well 6	December 5, 2019
70	Plumbness and alignment test ASR-Well 6	December 6, 2019
71	Well video ASR-Well 6	December 9, 2019
72	Clean-up and cuttings disposal ASR-Well 6	December 12, 2019
73	Receive final pump design for ASR-Well 6	December 3, 2019
74	Well head completion ASR-Well 6	December 16, 2019
75	Order pump and motor for ASR-Well 6	December 3, 2019
76	Receive pump and motor ASR-Well 6	December 16, 2019
77	Install new pump & motor ASR-Well 6	December 23, 2019
78	Commissioning & functional testing ASR-Well 6	December 23, 2019
79	Final completion ASR-Well 6	December 23, 2019
80	Acceptance test ASR-Well 6	December 23, 2019
81	Date of acceptance ASR-Well 6	December 23, 2019
82	Notice of Completion Date for ASR-Well 6 for final payment	December 23, 2019

Footnotes:

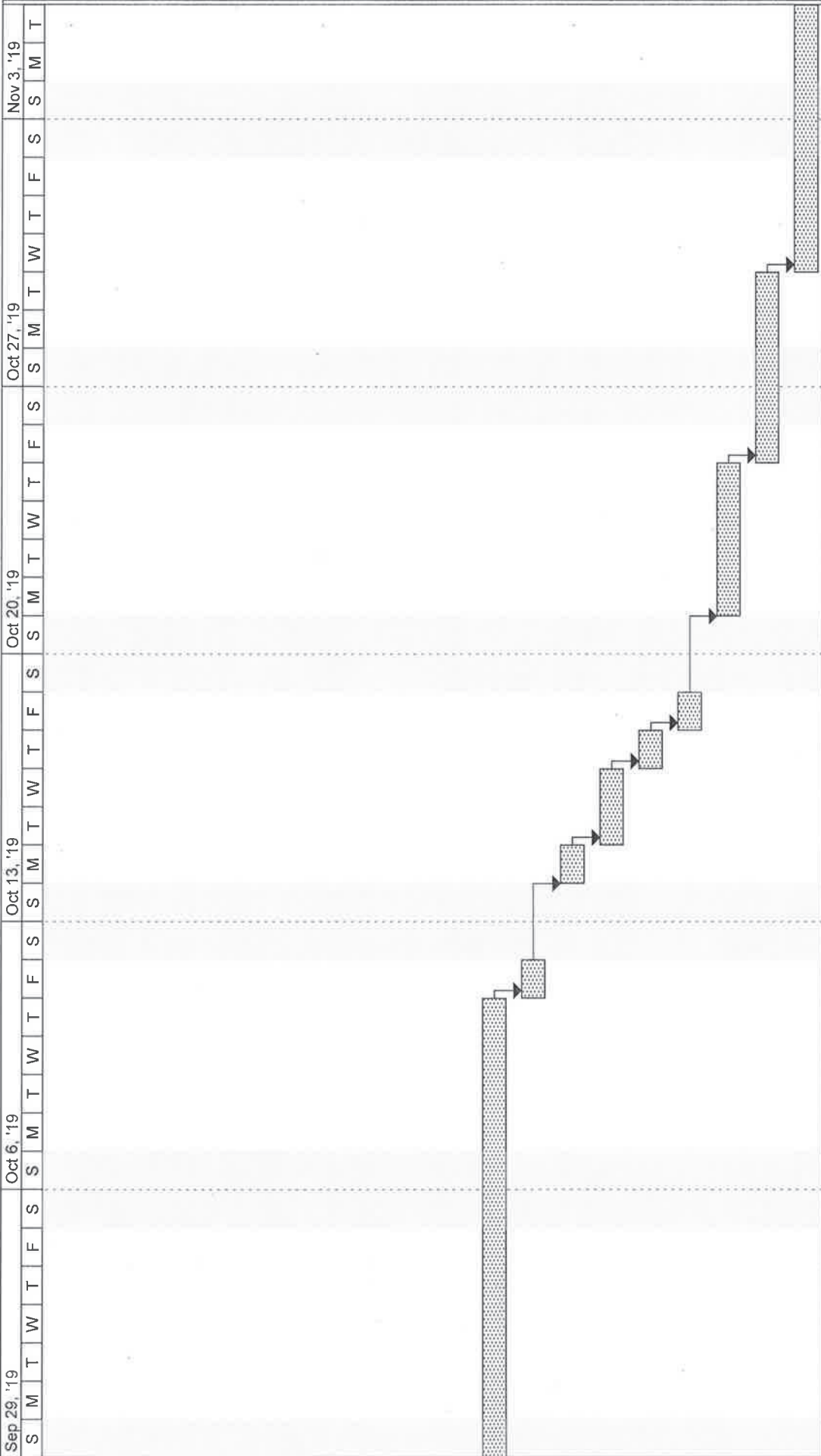
- 1 List each major activity and milestone separately.
- 2 Indicate the end of activity or date milestone achieved.

A2



Project: Fitch Park ASR-5
Date: Wed 11/14/18


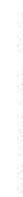


Task		Summary		Rolled Up Progress	
Split		Rolled Up Task		External Tasks	
Progress		Rolled Up Split		Project Summary	
Milestone		Rolled Up Milestone			








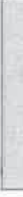

Project: Fitch Park ASR-5
Date: Wed 11/14/18

Task		Summary		Rolled Up Progress	
Split		Rolled Up Task		External Tasks	
Progress		Rolled Up Split		Project Summary	
Milestone		Rolled Up Milestone			

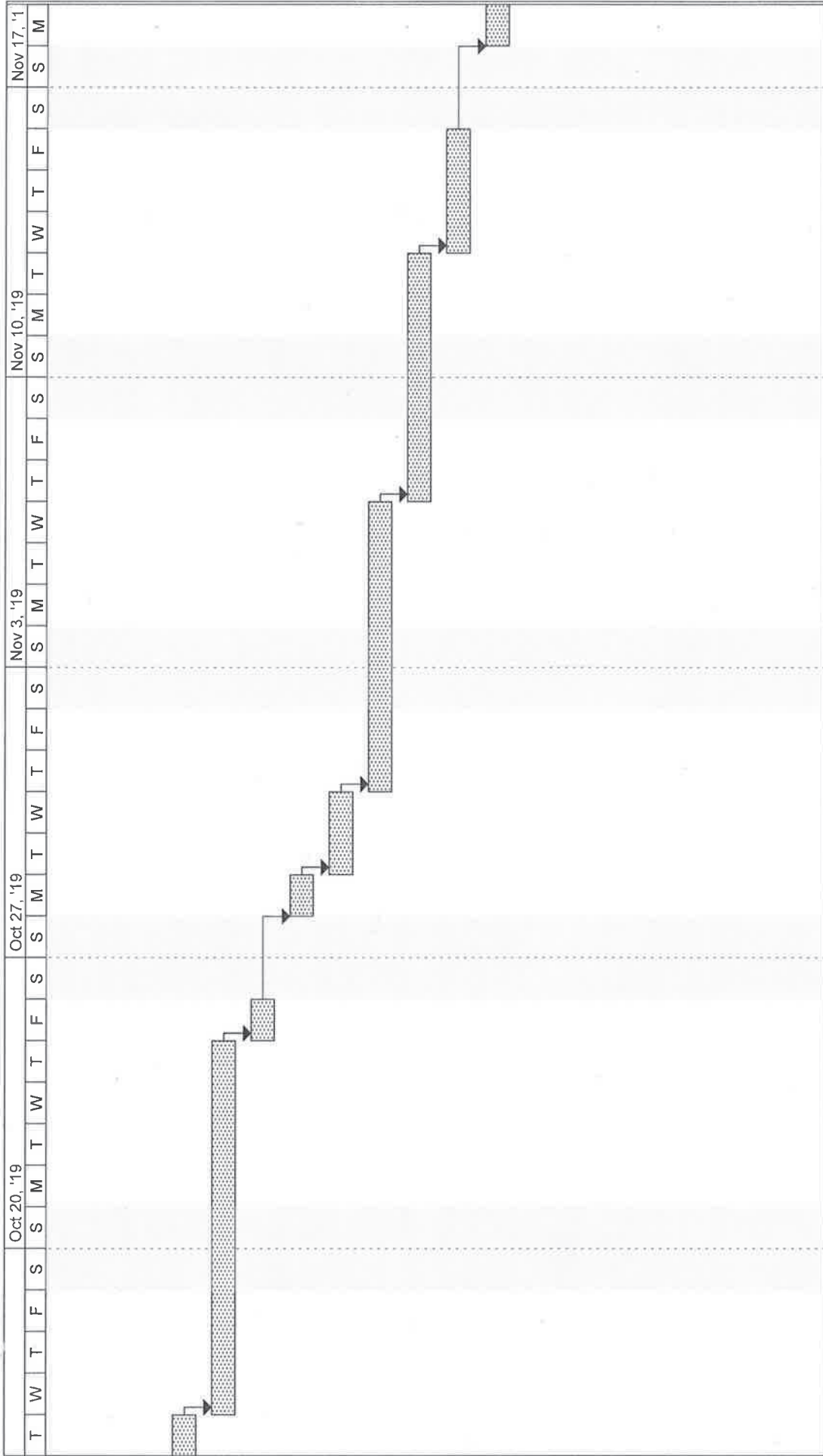
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			S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	S							
1	Mobilization, BMP's, water supp	10 days																															
2	Install sound panels	5 days																															
3	Install conductor casing	1 day																															
4	Drill pilot hole & elog	7 days																															
5	Ream borehole & caliper survey	7 days																															
6	Install casing and tubing	1 day																															
7	Install gravel pack	1 day																															
8	Install grout seal	2 days																															
9	Mechanical development	5 days																															
10	Remove rig equipment	4 days																															
11	Install test pump & discharge	3 days																															
12	Pump development & testing	10 days																															
13	Downhole velocity surveys	1 day																															
14	Disinfection	1 day																															
15	Remove test pump	2 days																															
16	Plumbness and alignment	1 day																															
17	Well video	1 day																															
18	Cleanup and cuttings disposal	3 days																															
19	Well head completion	2 days																															
20	Install new pump & motor	5 days																															

 Task
 Split
 Progress
 Milestone

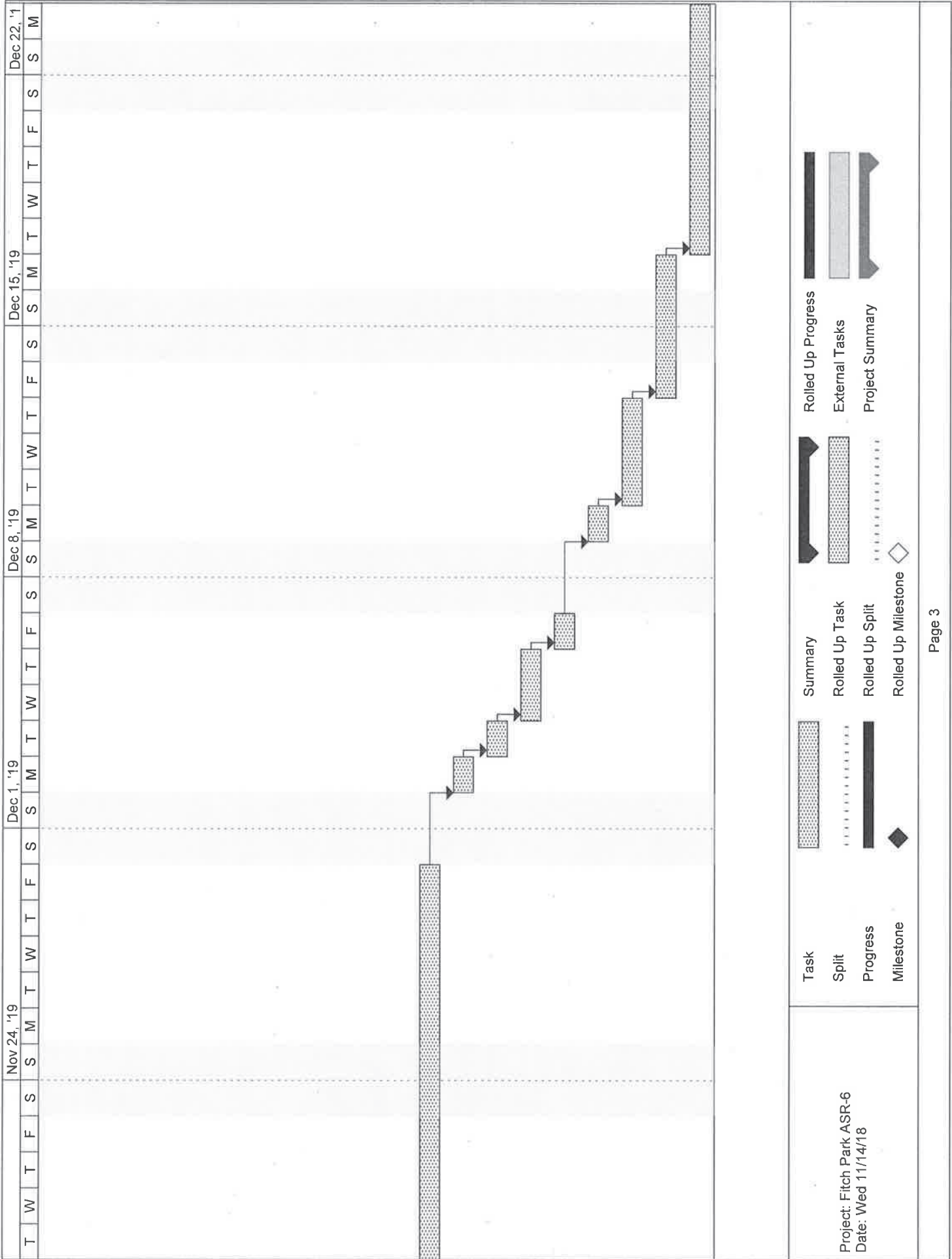
 Summary
 Rolled Up Task
 Rolled Up Split
 Rolled Up Milestone

 Rolled Up Progress
 External Tasks
 Project Summary

Project: Fitch Park ASR-6
Date: Wed 11/14/18



<p>Project: Fitch Park ASR-6 Date: Wed 11/14/18</p>	<table border="0"> <tr> <td>Task</td> <td></td> <td>Summary</td> <td></td> <td>Rollover Progress</td> <td></td> </tr> <tr> <td>Split</td> <td></td> <td>Rollover Task</td> <td></td> <td>External Tasks</td> <td></td> </tr> <tr> <td>Progress</td> <td></td> <td>Rollover Split</td> <td></td> <td>Project Summary</td> <td></td> </tr> <tr> <td>Milestone</td> <td></td> <td>Rollover Milestone</td> <td></td> <td></td> <td></td> </tr> </table>	Task		Summary		Rollover Progress		Split		Rollover Task		External Tasks		Progress		Rollover Split		Project Summary		Milestone		Rollover Milestone			
Task		Summary		Rollover Progress																					
Split		Rollover Task		External Tasks																					
Progress		Rollover Split		Project Summary																					
Milestone		Rollover Milestone																							



Project: Fitch Park ASR-6
 Date: Wed 11/14/18

A3

Previous Project Experience

A. Summary of Exploratory Drilling and Formation Water Quality Sampling Project Work

- 1.) See the attached previous project experience summary sheets of Exploratory Drilling and Formation Water Quality Sampling project work performed by Zim Industries, Inc.
- 2.) Providing the following information:
 - a) Zim has never failed to complete an exploratory well project that it has been contracted to drill and perform.
 - b) Zim Industries, Inc. has extensive experience over the past 30 years using drilling mud, settling mud tanks / pits and discharging into sanitary sewer and storm drain systems during the drilling and construction of municipal water wells. We typically set two to three above ground mud tanks with baffles built in to allow drilling cuttings to settle out of the drilling fluid before the drilling fluid is circulated back into the open borehole of the well. The mud tanks are dipped with a backhoe to remove the cuttings from the tank. In addition, Zim Industries, Inc. has a 20,000 gallon Frac Tank on-site to handle fluids prior to discharge into sanitary sewer and / or storm drain systems. Zim also has a 10,000 gallon pre-mix system to use to pre-mix drilling fluids as may be required. See attached experience sheets and proposed drilling methodologies.
 - c) Zim will use a fluid control (mud) program consisting of Bentonite – Drispac if severe clay instability occurs, or Baroid easy mud if so desired by the Owner or its representative. Zim controls the drilling fluid during drilling and construction by measuring the mud weight, water loss, and viscosity of the drilling fluid. Zim performs hourly checks for viscosity, fluid water loss will be kept under 10 in severely unstable clay formations; mud weight will be kept under 9 pounds and sand content will be kept below 3%. Zim employs and owns various size desanders as may be required to keep sand content below 3%. In addition, the mud tank system set up by Zim Industries, Inc. is of adequate size and volume to allow the sand and cuttings to fall out of the drilling fluid prior to recirculation and returning into the well borehole. Equipment used by Zim Industries, Inc. includes mud tanks, sand separator, and backhoe to dip mud tanks. See attached experience sheets and proposed drilling methodologies.
 - d) Zim Industries, Inc. has experience over the past 30 years controlling artesian flows during drilling and well construction. See attached experience sheets and proposed drilling methodologies.
 - e) Zim Industries, Inc. has extensive experience over the past 30 years in performing zone testing on aquifer formations to ascertain water quality and estimated water quantity flows out of a specific zone of the aquifer formation. See attached experience sheets and proposed drilling methodologies.
 - f) Over the past 30 years Zim Industries, Inc. has encountered loss circulation, artesian water flows, caving clays and most every other potential drilling condition that can occur. Zim Industries, Inc. has the expertise, ability and the experience to handle and overcome any problem or drilling situation that could occur.
In Sedona, Arizona we encountered loss circulation due to drilling into a fault / cavern. In the upper aquifer formations we were able to ream a larger diameter borehole and pour a cement seal to close off the loss circulation fault / cavern and then re-drill thru the cement seal. When we reached the water producing aquifer formation depth we no longer used this procedure because we did not want to close off a water producing zone

in the completed well. Because we were in a rock formation we were able to drill and airlift out the sand formation and get past the cavern and complete the well with screen in the water producing aquifer formations: See attached experience sheets and proposed drilling methodologies.

B. Summary of Production Well Drilling and Construction Project Work

- 1) See the attached previous project experience summary sheets of Production Well Drilling and Construction project work performed by Zim Industries, Inc.
- 2) Providing the following information:
 - a) Zim has never failed to complete a production well drilling and construction project that it has been contracted to drill, construct, develop and test.
 - b) Zim Industries, Inc. has extensive experience over the past 30 years using drilling mud, settling mud tanks / pits and discharging into sanitary sewer and storm drain systems during the drilling and construction of municipal water wells. We typically set two to three above ground mud tanks with baffles built in to allow drilling cuttings to settle out of the drilling fluid before the drilling fluid is circulated back into the open borehole of the well. The mud tanks are dipped with a backhoe to remove the cuttings from the tank. In addition, Zim Industries, Inc. has a 20,000 gallon Frac Tank on-site to handle fluids prior to discharge into sanitary sewer and / or storm drain systems. Zim also has a 10,000 gallon pre-mix system to use to pre-mix drilling fluids as may be required. See attached experience sheets and proposed drilling methodologies.
 - c) Zim will use a fluid control (mud) program consisting of Bentonite – Drispac if severe clay instability occurs, or Baroid easy mud if so desired by the Owner or its representative. Zim controls the drilling fluid during drilling and construction by measuring the mud weight, water loss, and viscosity of the drilling fluid. Zim performs hourly checks for viscosity, fluid water loss will be kept under 10 in severely unstable clay formations; mud weight will be kept under 9 pounds and sand content will be kept below 3%. Zim employs and owns various size desanders as may be required to keep sand content below 3%. In addition, the mud tank system set up by Zim Industries, Inc. is of adequate size and volume to allow the sand and cuttings to fall out of the drilling fluid prior to recirculation and returning into the well borehole. Equipment used by Zim Industries, Inc. includes mud tanks, sand separator, and backhoe to dip mud tanks. See attached experience sheets and proposed drilling methodologies.
 - d) Zim Industries, Inc. has experience over the past 30 years controlling artesian flows during drilling and well construction. See attached experience sheets and proposed drilling methodologies.
 - e) Zim Industries, Inc. has extensive experience over the past 30 years in performing zone testing on aquifer formations to ascertain water quality and estimated water quantity flows out of a specific zone of the aquifer formation. See attached experience sheets and proposed drilling methodologies.
 - f) Over the past 30 years Zim Industries, Inc. has encountered loss circulation, artesian water flows, caving clays and most every other potential drilling condition that can occur. Zim Industries, Inc. has the expertise, ability and the experience to handle and overcome any problem or drilling situation that could occur.
In Sedona, Arizona we encountered loss circulation due to drilling into a fault / cavern. In the upper aquifer formations we were able to ream a larger diameter borehole and pour a cement seal to close off the loss circulation fault / cavern and then re-drill thru the cement seal. When we reached the water producing aquifer formation depth we no longer used this procedure because we did not want to close off a water producing zone

in the completed well. Because we were in a rock formation we were able to drill and airlift out the sand formation and get past the cavern and complete the well with screen in the water producing aquifer formations. See attached experience sheets and proposed drilling methodologies.

Following Information

- A. Zim has never failed to successfully complete an exploratory borehole.
- B. Zim has drilled hundreds of exploratory boreholes which were later developed into production wells, most were in Alluvial Sediments.
- C. Zim has drilled several exploratory wells in artesian conditions, some in California one in Kamus Utah and one in Brigham City Utah. We have been able to control all boreholes so far by using a bentonite system to carry barite to add weight to off set the artesian pressures. A shut in system is needed to address a sudden spike in artesian pressure that would overwhelm the weighted mud system and cause mud weight to thin down because of the entrance of fresh water. The system must be controlled mechanically until a pre-mixed tank of mud with added weight can be pumped through the drill string to overcome the higher artesian pressure that has entered the well bore this situation can usually be avoided by careful monitoring of the fluid level in the above ground portable pits, and reacting to a gain in the fluid level in the pits by adding more weight to the fluid systems. It is advisable to keep a frac tank full of pre-mixed weighted Bentonite/Barite fluid mixed one or two pounds per galloon heavier than the weighted system that proved to be not heavy enough to prevent the intrusion of the newly encountered artesian head spike. Care must also be exercised to not overweight the system so much that it can be so much heavier that the artesian flow and cause lost circulation by pushing the water back into the artesian source and thereby creating an unbalanced system that can greatly damage the weighted mud in the borehole and cause a loss of control.

Summary

Many different problems may exist in any borehole, it is imperative that the personnel must be able to evaluate a problem as it starts and employ corrective measures before control is lost and serious problems arise.

D. Developing and executing safety plans during drilling.

The tool pusher (job supt) is responsible for rig safety training and personal inspection of the stress points that are most likely to fail done on a daily basis.

Zim has a safety plan booklet plus tailgate meetings weekly to address any potential problems that a particular location or borehole may present that was not anticipated when the initial job plan was planned.

E. Description of an unusual problem encountered on a previous project and the solution of that problem

Brigham City Utah well recently completed by Zim.

Zim was aware that artesian conditions were present because a test hole had been drilled part way to anticipated depth but the drilling company reached a point where they gave up on advancing the test 8" test hole to the planned depth. A 2" pizometer was installed and it flowed a small GPM but had 15Lbs. shut in pressure. Winter time conditions existed which greatly complicated the above ground working conditions continued to the full depth of the well, the hole went out of plumb and Zim employed three stabilizers to enable us to drill out of the hole and obtain a plumb hole. The entire length of the borehole below the 100' long conductor could not be drilled faster than one foot per hour and maintain plumbness of under 1/2 degree. Zim employed a premix tank with a premixed heavy mud to overcome the many times we experienced increased fluid level in the portable above ground pits and pumped a pill of extra heavy mud to keep the well under control to full depth the well was a sever financial disaster to Zim. However we were able to complete the well to the planned depth of 1000' and keep it under 1/2 degree plumbness and complete the well as planned and the well is a very good producer of good quality water. Zim knows that we took the financial beating we were

able to fulfill our contracted responsibilities and are proud of fact.
Zim learned some valuable lessons on this well and are proud of the

fact that we were able to complete a successful high quality
production well where our competition could not complete a full
depth test hole.

- Previous Project Experience

Exploratory and Production Well Drilling and Construction

2.

Provide the following information for the production wells constructed by
Zim Industries, Inc.
with similar well design and construction requirements located in similar geologic
conditions.

- a. Zim Industries, Inc. has not ever failed to complete a production well that it has agreed to drill and construct. In fact, Zim Industries, Inc. takes pride in the fact that it successfully completed every project contracted to complete to comply with the owner's specifications. In addition, unusual problems that have occurred during the drilling, construction and completion of past projects have always been met and solved (sometimes at a large financial expense to Zim Industries, Inc.) to ensure that the project was completed in accordance with the owner's well specifications. Zim Industries, Inc. is and has always been in the business of delivering high quality water wells that meet the owner's well contract specifications.
- b. A summary of Zim Industries, Inc.'s experience using drilling mud, including our ability to settle mud out of the drilling fluid water in preparation for discharge into sanitary sewer or storm drain systems is attached.
- c. A summary of the equipment used by Zim Industries, Inc. and our experience in measuring and controlling drilling mud during construction is also attached.
- d. Over our past thirty plus years of well construction experience, Zim Industries, Inc. has experience in controlling numerous artesian flowing wells during drilling and completion. See the attached experience sheets summarizing our experience in controlling artesian flows. In addition, see the attached drilling record summarizing the details of controlling the artesian flow of one such well in Utah.
- e. Over our past thirty plus years of well construction experience, Zim Industries, Inc. has a vast experience in zone testing wells during drilling. Nearly all of the municipal water wells that Zim Industries, Inc. has drilled have required and received zone testing. See the attached experience sheets summarizing our experience in zone testing wells during drilling.
- f. Over our past thirty plus years of well construction experience, Zim Industries, Inc. has occasionally had experience in encountering unusual problems during drilling. The two most unusual problems encountered are encountering artesian flows and encountering unstable borehole formations. See the attached experience sheets summarizing our experience in controlling artesian flows and controlling unstable borehole formations. In addition, see the attached drilling record summarizing the details of controlling the artesian flow of one such well in Utah.

Powder Mountain Water and Sewer Improvement
District Contractor Qualifications for Exploratory Drilling
Formation Water Quality Sampling (Zone Testing Production Well,
Drilling and Construction.)

Response to Project Description:

1. Mobilization and Site Preparation.
2. Drilling 28" hole by dry auger method to a depth of 40.'
3. Install and Grouting in 40' of 24" 3/8 wall casing.
4. Adding 5' of 24" casing above ground level to accommodate portable above ground level circulating tanks (pits).
5. Add a 30 O.D. x 24" I.D. machined top surface flange to accommodate the 1" thick rubber seal if flowing conditions occur.
6. The Artesian flow seal consists of a 1" inch thick rubber seal with two pipe top horse shoe type plate to fit the drill pipe and drill collar clamp to apply the tool weight to put pressure on the top plates to compress the 1" thick rubber gasket & shut off the flow until the fluid in the circulation system is weighted with barite, heavy enough to off-set the artesian pressure and then drilling can proceed.
7. The fluid weight must be maintained until well is complete.
8. Zim has performed hundreds of isolated zone tests to determine water quality.
9. A 6" inlet and valve will be installed on the conductor near ground level, we can then pump water at capacities above artesian head when we make connections and complete the well.

We plan to use Century Wireline, Casper Wyoming. Scott Holt 307-751-7351

See Artesian flow example.

2 diff. Experience Controlling Artesian Flow

DRILLING REPORT

JOB # 06148

RIG # 360 #1

JOB NAME AND DESCRIPTION:

VICTORY RANCH WELL #1
WASATCH COUNTY, UTAH

OWNER:

JORDANELLE SPECIAL SERVICES DISTRICT
10420 NORTH JORDANELLE BOULEVARD
P.O. BOX 519
HEBER CITY, UTAH 84032
CONTACT: STEVE JACKSON, P.E.
PHONE (435)333-0475 FAX (435)333-0513 CELL (801)558-5293

CONSALTANT:

LOUGHLIN WATER ASSOCIATES LLC.
3100 W. PINE BROOK ROAD
SUITE 1100
PARK CITY, UTAH 84098
CONTACT: GEORGE CONDRAT
PHONE: OFFICE (435)649-4005 FAX (435)649-4085 CELL (435)659-1753

WELL LOCATION

N 1900' E 2100' FROM SW COR. S32, T2S, R6E, SLB&M

AUTHORIZED START CARD

DRILLER START CARD FOR CHANGE
A27174(55-11166)

SURFACE PIPE REQUIRED

46 FEET 30 INCH .375 WALL PIPE FROM KELLY PIPE

DRILLED BY B.I. DRILLING DRILLED 44 INCH TO 58 FEET
SET PIPE AT 46 FEET (BOTTOM PART OF HOLE NOT STRAIGHT)
CEMENT WITH 10 YDS. 16 SK. SAND SLURRY FROM BINGGELI ROCK

DRILLING METHOD

REVERSE FLOOD

PILOT HOLE REQUIRED

NO DRILLED 17 ½ WHICH IS FULL DIAMETER
START DRILLING 11-25-06
T.D. 12-8-06 AT 1200 FEET

GEOPHYSICAL LOGS REQUIRED

RAN BY JET WEST
E-LOG
NATURAL-GAMMA NEUTRON LOG
CALIPER LOG
TEMPATURE LOG
DEVIATION LOG
LOGGING TIME 8 HRS.

WAIT ON MATERIALS

LOGGING FINISHED 4:00 PM 12-9-06
T.I.H. CONDITION DRILLING FLUID AND WAIT ON CASING AND GRAVEL
T.O.H. AT 12:00 AM 12-14-06 TO START TO BUILD WELL

CASING DESIGN

TOTAL CASING 1103 FT.
SET AT 190 FT.
+3 TO 760 FT. 12 IN. .375 WALL MILD STEEL (KELLY PIPE) BLANK
760 TO 820 FT. 12 IN. S.S. WIRE WRAP .100 SLOT
820 TO 840 FT. 12 IN. .375 WALL BLANK
840 TO 1000 FT. 12 IN. S.S WIRE WRAP .100 SLOT (ROSCO MOSS)
1000 TO 1020 FT. 12 IN. .375 WALL BLANK
1020 TO 1080 FT. 12 IN. S.S. WIRE WRAP .100 SLOT
1080 TO 1090 FT. 12 IN. .375 WALL BLANK

CENTRALIZER SPACING

40 FT ON SCREEN S.S. CENTRALIZERS ON S.S. PIPE
80 FT. ON BLANK CASING

GRAVEL FEED TUBE AND SOUNDING TUBE

NOT REQUIRED

GRAVEL PACK

1200 FT. TO 1100 FT. 10 YDS. LOCAL PEA GRAVEL
1100 FT. TO 600 FT. WITH 14 ½ SUPER SKS. ¼ X 1/8 S.R.I. 23 TON
600 FT. TO 285 FT WITH 3/8 PEA GRAVEL 24 TON
285 FT. TO 277 FT. WITH FINE SAND ½ TON

CEMENT GROUT SEAL

277 FT. TO GROUND LEVEL WITH 20 YDS. 16 SK. SAND SLURRY
BINGGELI ROCK PRODUCTS PRODUCT I.D. 16-SLURRY

RIG DEVELOPMENT

NOT REQUIRED

SOUND PANELS

NOT REQUIRED

BIT RECORD

2) 17 ½ BUTTON BITS

MATERIALS USED

10 YDS. 16 SK. SAND SLURRY CEMENT FOR SURFACE PIPE
20 YDS. 16 SK. SAND SLURRY CEMENT FOR TOP SEAL
60 TON PEA GRAVEL
10 TON FINE SAND
BARITE 808 SKS.

QUICK GEL 336 SKS.
QUICK TROLL 14 BUCKETS
SODA ASH 12 BAGS

FORMATION LOG

0-16 ALLUVIUM BROWN
16-35 WEATHERED VOLCANIC SAND AND CLAY (GRAY)
35-105 AGGLOMERATE WITH CLAY (GRAY VOLCANIC)
105-400 AGGLOMERATE WITH SOME CLAY (GRAY VOLCANIC)
400-500 AGGLOMERATE WITH 30-50% CLAY (GRAY VOLCANIC)
500-626 CLAYSTONE 70-80% WITH SAND (GRAY VOLCANIC)
626-630 SAND AND GRAVEL UNCEMENTED (GRAY VOLCANIC)
630-642 CLAYSTONE (GRAY VOLCANIC)
642-644 SAND AND GRAVEL UNCEMENTED (GRAY VOLCANIC)
644-648 CLAYSTONE (GRAY VOLCANIC)
648-650 SAND AND GRAVEL UNCEMENTED (GRAY VOLCANIC)
650-680 CLAYSTONE WITH QUARTZITE FRAGMENTS (GRAY&BROWN VOL.)
680-726 CLAYSTONE (BROWN VOLCANICS)
726-760 WEATHERED QUARTZITE W/CLAY (TAN & REDDISH)
760-810 QUARTZITE W/TRACE TO SOME CLAY (BROWN)
810-820 QUARTZITE (BROWN)
820-840 QUARTZITE WITH CLAY (BROWN)
840-1000 QUARTZITE WITH TRACE CLAY (TAN)
1000-1020 QUARTZITE W/ SOME CLAY & CHERT (BROWN)
1020-1080 QUARTZITE WITH TRACE CLAY (TAN)
1080-1130 QUARTZITE WITH 20-50% CLAY (TAN)
1130-1200 SANDSTONE AND SILTSTONE (GRAY AND BROWN)

NOTES

ARTESIAN FLOW GOT OUT OF CONTROL AFTER SCREEN WAS COVERED WHILE GRAVEL PACKING 12-16-06 @ 4:00 A.M. FLOW WAS COMING UP 5 IN. WHICH KELLY WAS CONNECTED TO WHICH FROZE, AND FLOW WAS COMING UP ANNULAS BETWEEN 12 IN AND 30 IN. WELD PLATES BETWEEN CASING AND CONDUCTOR AND BETWEEN CASING AND 5 IN. PICK UP 6 IN. PUMP FROM WATER MOVERS 12-19 . LAY OUT 8 IN. DISCHARGE TO RETENSION BASIN AND TO RIVER WITH TEE AND VALVES.6 IN PUMP COULD NOT HANDLE FLOW.PICK UP 8 IN. PUMP FROM WATER MOVERS ,BREAK KELLY AND SET 5 IN. ON BOTTOM, WELD FLANGE ON 12 IN. BOLT ON T AND 8 IN. VALVE AND SPOOL ON TOP. SHUT IN OUTSIDE AND GET FLOW COMING UP 12 IN.

START GRAVEL PACKING ON 12-20 GRAVEL PACK TO 285 FT. CEMENT ON 12-21 12-23
THRU 12-26 LET WELL FLOW KEEPING EYE ON DISCHARGE 12- 27 THRU 12-29 HOOK
UP PUMP TO BASIN TRYING TO PULL WELL DOWN FAR ENOUGH TO PULL 5 IN. RAN
EXTRA DISCHARGE LINES TO RIVER AND HOOK UP 6 IN. PUMP PULL 5 IN ON 1-03-07.

WE WORKED FULL CREWS AROUND THE CLOCK UNTILL AFTER CEMENTING 12-21.
12-22 WORKED BOTH CREWS IN DAY TO SECURE FOR HOLIDAYS.

12-27 THRU 1-03 WORKED MYSELF AND 2 MEN, PUMPED TO BASIN THEN TO RIVER
TRYING TO PULL DOWN FAR ENOUGH TO PULL 5 IN.NEED MORE HELP, SO CUT
DOWN 30 IN. CASING TO GROUND LEVEL; AND CLEAN PITS. PLAN WAS AT THAT
POINT TO HOT TAP CLOSE TO GROUND LEVEL.

1-3 AFTER MEN GOT BACK FROM HOLIDAYS WE PULLED 5 IN. WHICH TOOK 6 HRS.
WITH 6 MEN.

START CONSTANT RATE TEST 1-4-07

PUMP TEST

CONSTANT RATE 24 HRS. AT 2500 GPM 1PSI ON WELL HEAD AT END OF
TEST

RECOVERY 5 HRS.

STEP TEST: 4 STEPS 1 HR. EACH 750 1300 1800 2400 TOTAL 4 HRS.

2 d. Experience Controlling Artesian Flow

WELL DRILLING WORK ORDER (AS COMPLETED)

Job Name and Description: Well Brigham City _____
Owner: Brigham City _____ Phone: _____ Job Well _____
Contact: Rene Castelo _____ Phone: 435-230-0423 _____ Fax: _____
Engineer: Hansen - Allen - Luce _____ Phone: _____ Fax: _____
Contractor: Bill Bigelow _____ Phone: 801-664-4377 _____ Fax: _____
Well Location (include City & County): Brigham City _____

Section: 18 _____ Township: 9N _____ Range: 1W _____ County: SL b&M _____

DRILLER RESPONSIBLE FOR COMPLETION OF THIS FORM: Richard Green

Start Date: 9/22/09 _____ Completion Date: 2/25/2010 _____ Permit On-Site (yes)

1. **DRILLING METHOD:** Reverse Rotary (x)
Conventional () Rotary () Cable Tool () Auger ()
2. **CONSTRUCTION SIGN REQUIRED? (YES) OR (NO)** no
3. **SOUND PANELS REQUIRED? (YES) OR (NO)** LENGTH no _____
4. **SURFACE CASING**
Diameter (30) Length (100 ') Wall Thickness (0.375) Copper Bearing ()
Hole Diameter (42)
Cement Grout Description: 16 yards 15 sack sand slury _____
5. **PILOT HOLE REQUIRED (YES) OR (NO)** Diameter (24) Depth (900')
FORMATION SAMPLES TO BE TAKEN AT (10') FT. INTERVALS by Zim
6. **GEOPHYSICAL LOG REQUIRED (YES) OR (NO)** Jet West _____
7. **WATER SUPPLY SOURCE:** Brigham City _____
8. **ZONE TEST REQUIRED (YES) OR (NO)** How Many (x) Hole Plug () sacks
Depths of Zone #1 (to) Airlift () hrs. Zone #4 (to) Airlift () hrs.
Zone Tests: Zone #2 (to) Airlift () hrs. Zone #5 (to) Airlift () hrs.
Zone #3 (to) Airlift () hrs. Zone #6 (to) Airlift () hrs.
9. **REAM PILOT HOLE TO** () Inch Diameter -- From () Depth to () Depth
() Inch Diameter -- From () Depth to () Depth
10. **CALIPER LOG REQUIRED (YES) OR (NO)** Logging Company: Jet West 505-320-4980 _____

11. BLANK CASING -

Source: Kelley Pipe

Casing Description: HSLA MILD STEEL

INSTALL FROM:

Wall Thickness (0.0375)

- A. From (+2) Depth to (300) Depth (16") Diam.
- B. From (860) Depth to (880) Depth () Diam.
- C. From () Depth to () Depth () Diam.
- D. From () Depth to () Depth () Diam.
- E. From () Depth to () Depth () Diam.

12. SCREEN OR PERF -

Source: Johnson

Description: 205 stainless steel

INSTALL FROM:

SLOT SIZE (0.70)

WALL THICKNESS (0.0375)

- A. From (300') Depth to (860') Depth (16") Diam.
- B. From () Depth to () Depth () Diam.
- C. From () Depth to () Depth () Diam.
- D. From () Depth to () Depth () Diam.
- E. From () Depth to () Depth () Diam.

13. DIELECTRIC COUPLER REQUIRED? (YES) OR (NO)

14. CENTRALIZERS SPACING: (60') Blank (60') Screen

15. GRAVEL FEED TUBES - INSTALL FROM:

DIAMETER (3")

- 1. (0') Depth to (80') Depth
- 2. () Depth to () Depth
- 3. () Depth to () Depth

16. SOUNDING TUBE (YES) OR (NO) Size (x) From () Depth to () Depth

17. SOUNDING ENTRANCE BOX (YES) OR (NO) no

18. CAMERA TUBE REQUIRED? (YES) OR (NO) no

Size (x) From () Depth to () Depth

19. CAMERA TUBE ENTRANCE BOX (YES) OR (NO) no

20. GRAVEL PACK: Amount (142.5) Tons () Cu. Yd.

From (70') Depth to (900') Depth

From () Depth to () Depth

Gravel Pack Design: 3/8 gravel

Source SRI

21. FORMATION STABILIZER? (YES) OR (NO) OR CEMENT? (YES) OR (NO):

Amount (7) Cu. Yd. () Tons

From (0') Depth to (70') Depth

From () Depth to () Depth

Cement Design: sack sand slurry 15 sack sand slurry

Sources: Parsons

22. ZONE SEALS - INSTALL FROM:

- Bags Used () 1. () Depth to () Depth
- Bags Used () 2. () Depth to () Depth
- Bags Used () 3. () Depth to () Depth
- Bags Used () 4. () Depth to () Depth

23. ANTICIPATED STATIC WATER LEVEL (0) FT.

24. DEVELOP-SWABBING & AIRLIFT PUMPING (YES) OR (NO) (144) Hours

25. CASING STICK-UP (+2) FT. SOUNDING TUBE STICK-UP () FT.

GRAVEL FEED TUBE STICK-UP (ground) FT. CAMERA TUBE STICK-UP () FT.

26. HAVE CUTTINGS BEEN REMOVED? (x) YES () NO

27. HAVE WATER METERS BEEN RETURNED? (x) YES () NO

28. HAVE RENTAL ITEMS BEEN RETURNED (TOILET, ETC.)? (x) YES () NO

29. WELL DRILLERS' CLEAN UP LOCATION COMPLETED? () YES

30. TEST PUMP (YES) OR (NO) DEPTH OF SETTING (280)
CAPACITY () HEAD ()

31. PUMP DEVELOPMENT TOTAL HOURS (36) BY: Jerry Stidham _____

32. STEP TEST? (YES) OR (NO) # OFx HOURS (18)

33. CONSTANT RATE TEST? (YES) OR (NO) # OF HOURS (24)
OF RECOVERY HOURS (1)

34. SPINNER LOGGING? (YES) OR (NO) # OF RUNS (x)

35. DEPTH SPECIFIC SAMPLES? (YES) OR (NO) # OF SAMPLES ()

SPINNER LOGGING COMPANY x _____

36. FINAL STATIC WATER LEVEL (0) FT.

37. BAIL WELL (no)

38. CEMENT PUMP BASE INSTALLED (YES) OR (NO)

39. PUMP INSTALLERS' CLEAN UP LOCATION COMPLETED (yes)

40. TV WELL (YES) OR (NO) DATE: 3/24/10 _____

41. WATER DISCHARGE: close by in field field _____

42. DISINFECT WELL (YES) OR (NO) DATE: yes _____

PRODUCT USED & QUANTITY: 25 gal chlorine _____

43. ALIGNMENT OF WELL (YES) OR (NO) DATE: 3/24/10 run dummies to 300' _____

CHANGE ORDERS: #1 80 ft. 3 in. gravel feed tube. #2 100 ft. 205 Stainless Steel screen ordered extra two pieces left over picked up by client. Time extension on start of well talk to Brian or Bill about this #3 No jairo run just dummy to 300 ft. Send written proposal to Bill Bigelow offering a \$1500.00 credit. Line idem is for \$3500.00 . Mud used on this well . soda ash 25 sacks quick troll 5 pails quick gel 1,431 sacks barite 5292 sacks n-seal 14 sacks hole plug 15 sacks bi-carb 22 sacks

REMARKS: Please bill this job as soon as possible for we are looking at very high liquidated damages . If we rush billing we may be looking at 2 to 3 days of liquidated damages . THANKS_

Richard Green
Signature of Person Responsible for Well Completion

3/15/2010
Date

Jerry Stidham
Signature of Person Responsible for Pump Test

Date

A4



BAROID INDUSTRIAL DRILLING PRODUCTS
Product Service Line, Halliburton

California American Water
Fitch Park ASR-5 and ASR-6 Wells- Technical Specifications
November 14, 2018

Prepared for:
Brian Zimmerer
Zim Industries Inc.
Fresno, CA. 93725

Prepared by:
Bill Douville
Drilling Fluids Engineer
Baroid Industrial Drilling Products
1460 Stroud Ave
Kingsburg, Ca. 93631

Graduate Halliburton Drill Fluid School 2011

Baroid Industrial Drilling Products
A Halliburton Company

1. Soda Ash – Soda ash (sodium carbonate) softens the water by removing the calcium responsible for water hardness. Usually, treatment of 1 pound per 100 gallons of makeup water is enough to drop the calcium content of water with moderate hardness and raise the pH to a range of 8.5 to 9.5. This level of pH will maximize the yield of Drispac or Quik-Gel and Quik-Trol LV.
2. Quik-Gel – Quik-Gel is an easy to mix, finely ground, premium grade, high yielding Wyoming bentonite. Quik-Gel provides viscosity, fluid loss control and gelling characteristics to freshwater based drilling fluids. Quik-Gel is NSF Standard 60 certified. Adjust the pH of the make up water in the range of 8.5 to 9.5 as determined by using pH indicator strips. Typical concentrations of Quik-Gel are 15 to 25 pounds per 100 gallons. It is recommended to start with 15 pounds per 100 gallons in an effort to control and maintain desirable viscosity ranges. Higher viscosities maybe needed to control hole stability and hole cleaning as in gravel or poorly consolidated formations. An amount of 30 pounds per 100 gallons could be necessary to raise the viscosity high enough for control. Any increases in viscosity should only be used to achieve effective drilling operations and should be decreased when the formations allow. Quik-Gel additions to the drilling fluid system need to be slow and through a high pressure venturi mixing hopper for proper shear.
3. QuikTrol LV – QuikTrol LV is a modified natural cellulosic polymer that provides filtration control in most water based drilling fluids without substantially increasing viscosity. Its primary function is to strengthen the wall cake to provide fluid loss protection across alluvial zones. Its secondary function is to provide shale and clay inhibition. Recommended treatment is one to one and one half pounds per 100 gallons. It is NSF Standard 60 Certified and is non fermenting. QuikTrol LV should be mixed after the Quik-Gel is mixed and through the same venturi hopper.
4. PAC-L, DRISPAC SUPERLO– PAC-L and DRISPAC SUPERLO can be used as an alternative to QuikTrol LV where NSF certification is not required. PAC-L and DRISPAC SUPERLO are also a natural cellulosic polymer that provides filtration control in most water based drilling fluids without substantially increasing viscosity. Both have the same primary and secondary functions as QuikTrol LV and is non fermenting.
5. EZ Mud Gold – EZ Mud Gold is a clay and shale inhibitor polymer. It can be used in conjunction with either QuikTrol LV or PAC-L when drilling clay or shale formations that are extremely sensitive to swelling and sloughing. It has a beaded structure that allows the material to be mixed with minimum shear without increasing viscosity to high levels. Recommended rates when mixing with QuikTrol LV or PAC-L is one half to one pound per 100 gallons, and should be

mixed last. The time required to mix is usually 5 minutes per 10 pound pail through a venturi hopper. EZ Mud Gold is non fermenting and is NSF/ANSI Standard 60 certified.

SOLIDS CONTROL

To help in the control of solids build up in the drilling fluid system it is recommended to monitor the mud weight on a timely basis and when the weight increases above 9.5 pounds per gallon to dilute the weight by pumping to waste about one half the circulating volume and replacing it with a premixed volume of the above recommended ratios of product. With this method it is also beneficial to have surface pits with volumes that correspond with total hole volumes. Baffles in the surface pits will also aid in reducing the surface velocity and increasing retention times to aid in the settling of drilled solids. Total solids content shall not exceed 10%.

CONTINGENCY PRODUCTS:

In the event of unanticipated drilling problems, the following is offered as a recommendation on approval by the representative hydrologist.

For bit balling due to sticky clays;

1. **PENETROL** – Penetrol is an NSF Standard 60 Certified, water miscible, non ionic wetting agent designed to reduce or eliminate the sticky tendencies of clays. It can also be used to address problems with bit balling thus somewhat improving drilling efficiency. Should it be needed in the system, it is effective in low concentrations of 1 quart per 100 gallons, with upper concentrations of 2 quarts per 100 gallons.
2. **CON DET** – Con Det is a proprietary blend of anionic surfactants that reduce or eliminate the sticky tendencies of clays which reduce bit balling and thus somewhat improve drilling efficiency. The recommended treatment rate is 1 to 6 quarts per 100 gallons depending on the severity of the problem. Con Det does not have NSF certification.

For lost circulation;

1. **N-SEAL** – N-Seal is an NSF Standard 60 Certified acid soluble lost circulation material formulation from extruded spun mineral fiber. It is commonly used as a lost circulation additive on commercial and municipal water wells where conventional biodegradable materials cannot be used due to the possibility of bacterial contamination. Typical treatment rates are in the range of 15 to 35 pounds per 100 gallons. In severe loss zones the concentrations can be as high as 70 pounds per 100 gallons. N-Seal can also be used as a hole sweep when hole cleaning options are limited. Concentration rates for this application can vary with the severity of the problem. N-Seal can be removed from production zones using weak acids.
3. **MAGMA FIBER** – Magma Fiber is also an acid soluble lost circulation material formulation from extruded spun mineral fiber but is not NSF certified. It is used in wells where biodegradable materials cannot due to the possibility of bacterial contamination. Typical treatment rates are 25 to 35 pounds per 100 gallons and in severe zones 70 pounds per 100 gallons. Magma Fiber can be removed from production zones using weak acids.

For removal of N-Seal or Magma Fiber;

1. **AQUA CLEAR MGA** – Aqua Clear MGA is ANSI/NSF Standard 60 Certified. It is a dry blend of granular acids and other additives that is effective in dissolving extruded spun mineral fibers such as N-Seal and Magma Fiber. In post drilling operations, typical treatment rates are for each pound of N-Seal or Magma Fiber that was introduced into the well, to use 1 to 2 pounds of Aqua Clear MGA mixed with one gallon of surface water. The resulting pH should be below 3 and most commonly will be 1. It is recommended to place the mixture across the screen interval with a tremmie line. Then, mechanical means should be employed such as surge block, jetting or air lift to work the mixture past the gravel pack. The mixture should then set for 24 to 48 hours before pumping or air lifting to the surface. At surface, the pH can be elevated to a neutral pH of 7 by using soda ash. Placing soda ash into the well bore may produce sediments that may form deposits. Follow local, state and federal agency guidelines when disposing of

the used fluids. **CAUTION: NEVER USE CHLORINE WITH AQUA CLEAR MGA AS TOXIC GASES MAY BE PRODUCED.**

Development Products:

During the drilling of a regional aquifer, it is expected that a wall cake could form on the permeable formations. Removal of the wall cake after setting the well is necessary to restore the natural permeability of the formations. Should a well development program be used at the conclusion of the well drilling program, it is suggested to use AquaClear PFD as a well cleaning additive. AquaClear PFD is an NSF Standard 60 Certified liquid polymer dispersant that has been shown to be a superior removal agent for mud and sediment when these become lodged in a producing formation. AquaClear PFD does not contain phosphates and will not promote bacterial growth. Typical treatment rates for well development are one gallon of AquaClear PFD per 500 gallons of water.

Suggested program for well development on the approval of the representative hydrologist:

1. Determine the volume of the screen area and double the calculated volume to account for the water in the gravel pack and the formation area adjacent to the well bore.
2. Once the volume is determined, calculate the required treatment volume of AquaClear PFD using a treatment rate of one gallon of AquaClear PFD per 500 gallons of water.
3. Mix the product thoroughly before introducing it into the well. The product can be placed directly through the swab tool or if a swab tool is not to used then through a tremie line directly into the screen interval of the well. If neither of the two is available, the product mix can be poured directly into the well but the results may not be as effective.
4. The mixture should be thoroughly blended, and then agitated using surge and swap, jetting, air lift or other developmental techniques every two hours for a period up to 24 hours. Alternatively, the well can be surged and swapped at the rate of approximately 2 to 3 minutes per foot.

5. Pump produced water to waste until turbidity clears up. Waste water should be discarded in accordance to any governing federal, state or local agencies.

Suggested Drill Fluid Spec range

Viscosity 29-40 sec
Weight- 8.6-9.0 lbs.
Sand Not greater than 1%
Filtrate Not greater than 20 ML per 30 Min.
Total Solids Not greater than 10 %
Wall Cake Not greater than 2/32

A5



ZIM INDUSTRIES, INC.

4532 E. Jefferson Ave. • Fresno, CA 93725

1. Name, address, and contact information of owner:

Monterey One Water

5 Harris Court, Bldg D

Monterey, CA 93940

Yohana Vargas or Maureen Hamilton 831-645-4605

2. Zim project number:

17045

3. Name of project:

Groundwater Replenishment Project Injection Wells Phase 1

4. Location of project:

General Jim Moore Blvd, Monterey

5. Brief description of work involved:

Drill two monitoring wells Borehole 10" x 460 and 10" x 900' with 4" casing; one deep injection well; pilot hole 900' borehole w/conductor casing and screen 830' x 24" dia; airlifting, surging development and test pumping. Also, extensive site work, grading

6. Final contract amount:

\$1,502,246.50

7. Completion date:

December 2017

8. Name, address, and contact information of Engineer; General Contractor; or other Representative:

Todd Engineering

2490 Mariner Square Loop, Suite # 215

Alameda, CA 94501

Edwin Lin 510-747-6920 ext 104 email: elin@toddgroundwater.com



ZIM INDUSTRIES, INC.

4532 E. Jefferson Ave. • Fresno, CA 93725

1. Name, address, and contact information of owner:

Monterey Peninsula Water Mgmt District

5 Harris Court

Monterey, CA 93940

Attn: Joe Oliver

2. Zim project number:

12095

3. Name of project:

Drill ASR-4 Well

4. Location of project:

General Jim Moore Blvd

5. Brief description of work involved:

Drill 36" dia Carbon Steel Conductor Casing, 945' Borehole, 22" Stainless Steel Casing, Well Development, Test Pumping

6. Final contract amount:

1,526,835.24

7. Completion date:

2014

8. Name, address, and contact information of Engineer; General Contractor; or other Representative:

Zim Industries, Inc.

4532 E. Jefferson Ave

Fresno, Ca 93725

Name, address, & telephone number of owner:

Monterey Peninsula Water Management District

5 Harris Court, Building G

Monterey, CA 93940

(805) 644-0470

2 Name of project:

Fitch School ASR Test Well Completion

3 Location of project:

General Moore Blvd and Lightfighter Ave

4 Brief description of work involved:

Drilled 925' Pilot Hole, Installed 940' of casing, Installed 693' of 3" diam SS
Sounding Tube, 330" of Gravel Pack, Performed 211 hours of Well Development

Contract amount:

\$1,187,959.00

6 Date of completion of contract:

Started December 2010 - Finished January 2011

7 Name, address, & phone number of architect or engineer:

Monterey Peninsula Water Management District

5 Harris Court, Building G

Monterey, CA 93940

(805) 644-0470

3 Name of owner's project engineer:

Robert Marks

(805) 620-2034

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.

Name of project:

Fitch School Asr -2 Test Well

Location of project:

General Jim Moore Blvd
Seaside, CA

Name, address, & telephone number of owner:

Monterey Peninsula Water Management District
5 Harris Crt Building G
Monterey, Ca 93940
(831) 658-5600

Architect or Engineer

Joe Oliver

Architect or Engineer Phone Number

(831) 658-5600

Name, address, & telephone number of Construction Manager:

Zim Industries, Inc
4545 E Lincoln Ave
Fresno, CA 93725
(559) 834-1551

Brief description of work involved:

22" x 950' Water Well Construction. Swabbing, Airlifting, Test Pumping,

Total value of construction(including change orders):

\$1,418,359.00

Original schedule completion date:

August 25, 2011

Time extensions granted(number of days):

21

Actual date of completion:

October 15, 2011

1. Name, address, and telephone number of owner:

Monterey Peninsula Water Management District
5 Harris Court, Building G
P.O. Box 85
Monterey, CA 93942-0085

2. Name of project:

Santa Margarita Test Injection – Well No. 2
Seaside, CA

3. Location of project:

Off General Jim Moore Road – Seaside, CA

4. Brief description of work involved:

Drill Well to 779' x 22" diameter casing, install 250 HP turbine
Pump and rehab existing injection well.

5. Contract amount:

\$ 1,069,793.88

6. Date of completion of contract:

April 2008

7. Name, address, and phone number of architect or engineer:

Steve Tanner
Pueblo Water Resources
4478 Market Street, Suite 705
Ventura, CA 93003

8. Name of owner's project engineer:

Joe Oliver
(831) 658-5640

Name, address, & telephone number of owner:

CALIFORNIA AMERICAN WATER COMPANY

511 FOREST LODGE RD, SUITE 100

PACIFIC GROVE, CA 93950

916-568-4271

Name of project:

CYPRESS WELL

Location of project:

MONTEREY AND CARMEL VALLEY RD

Brief description of work involved:

Drilled Water Wells - 102' of casing, 53' of gravel fill pipe

107' of sounding pipe, 10 hrs of well development by air lift swabbing

Contract amount:

\$494,609.81

Date of completion of contract:

9/09-10/09

Name, address, & phone number of architect or engineer:

TOM BRUNET - CAL AMERICAN WATER

4701 W BELOTT DR

SACRAMENTO, CA 95838

916-568-4271

Name of owner's project engineer:

TOM BRUNET - CAL AMERICAN WATER

916-568-4271

Name, address, & telephone number of owner:

Monterey Peninsula Water Management District

5 Harris Court, Building G

Monterey, CA 93940

(805) 644-0470

2 Name of project:

Santa Margarita ASR-2 Well Rehab Project

3 Location of project:

General Moore Blvd and Lightfighter Ave

4 Brief description of work involved:

Mobilization, Nylon Brushing, Pumping, Airlifting, Test Pumping,
Chemical Injection, Swabbing

Contract amount:

\$80,600.00

6 Date of completion of contract:

Started December 2010 - Finished January 2011

7 Name, address, & phone number of architect or engineer:

Monterey Peninsula Water Management District

5 Harris Court, Building G

Monterey, CA 93940

(805) 644-0470

8 Name of owner's project engineer:

Robert Marks

(805) 620-2034

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

LIST OF REFERENCES

\$ 1,161,427 Contract Amount TO BE SUBMITTED WITH BID. \$ 961,030 Contract Amount

<p>Name of Firm: <u>San Jose Water Company</u> Address: <u>110 W. Taylor Street</u> <u>San Jose, CA 95110-2121</u> Contact: <u>Thomas Gee 2/14/13 thru 4/14/13</u> Telephone: <u>(408) 279-7886</u> Email: <u>thomas.gee@sjwater.com</u> Work Description(s): <u>Drill, Construct, Develop & Test - 2</u> <u>Production Wells (#9 & #13): #9 ⇒ 820' depth x 18 5/8" dia.</u> <u>304SS x .312 louver 0.070; #13 ⇒ 790' depth x 18 5/8" dia. 304SS</u> <u>x .312 louver 0.070.</u></p>	<p>Name of Firm: <u>San Jose Water Company</u> Address: <u>110 W. Taylor Street</u> <u>San Jose, CA 95196-0001</u> Contact: <u>Thomas Gee 4/23/13 thru 6/14/13</u> Telephone: <u>(408) 279-7886</u> Email: <u>thomas.gee@sjwater.com</u> Work Description(s): <u>Drill, Construct, Test & Develop - 2</u> <u>Production Wells (#17 & #18): #17 ⇒ 710' depth x 18 5/8" dia.</u> <u>304SS x .312 louver 0.055; well #18 same as #17.</u></p>
<p>Name of Firm: <u>Del Monte Foods, Inc. \$788,365</u> Address: <u>10652 Jackson Avenue</u> <u>Hanford, CA 93230</u> Contact: <u>Ron Melkonian 11/09/15 thru 2/12/16</u> Telephone: <u>(559) 639-6718 (559) 469-6743</u> Email: <u>leticia.yanez@delmonter.com</u> Work Description(s): <u>Drill, Construct, Develop & Test</u> <u>Plant #24 production well ⇒ 1520' depth x 16" dia.</u> <u>304 S.S. x .312 wire wrapped screen 0.045</u></p>	<p>Name of Firm: <u>City of Fresno \$763,556 Contract</u> Address: <u>2102 G. Street, Building A</u> <u>Fresno, CA 93706</u> Contact: <u>Anita Luera 11/12/15 thru 12/31/15</u> Telephone: <u>(559) 621-1625</u> Email: <u>Cynthia.Fischer@fresno.gov</u> Work Description(s): <u>Drill, Construct, Develop & Test</u> <u>Well #303A ⇒ 710' depth x 18" dia. 304 S.S.</u> <u>x .312 louver 0.060</u></p>
<p>Name of Firm: <u>Tooele City Corporation ⇒ \$1,649,425 Contract Amount</u> Address: <u>90 North Main Street</u> <u>Tooele, UT 84074</u> Contact: <u>Paul Hansen 4-14-13 thru 12-22-13</u> Telephone: <u>(435) 843-2132</u> Email: <u>Paul@TooeleCity.org</u> Work Description(s): <u>Drill, Construct, Develop & Test</u> <u>2 Production Wells ⇒ Kennecott Well 1000' depth x 20" dia.</u> <u>SS x wirewrap 0.080; Redox Grounds 1000' depth x 18" dia.</u> <u>SS x wirewrap 0.070.</u></p>	<p>-----NOT USED-----</p>

Please see additional references, attached.

Curt Zimmerman
 Curt R. Zimmerman, President

PROJECT EXPERIENCE FORM

Well Owner	Well Location (City/State)	Contact Person	Phone Number/Email	Completed Well Depth	Casing Diameter(s) / Completion Zone	Drilling Method	Well Yield	Specific Capacity	Sand Production	Date Completed
Golden Hills Community Services District	Tehachapi, California	David Halopoff	(66) 616-5900	600 feet	Stratex well 16" \$240,091	Flooded Reverse Circulation Rotary	700 Gpm	7 GPM / Foot of drawdown	less than 1 ppm @ 5 min sand	2017
Irvine Ranch Water District	Bakersfield California	Joe McGhee	(949) 453-5542	3 wells 640-foot (1000-foot pilot hole)	Stockdale west water banking \$3,348,912	Flooded Reverse Circulation Rotary	2500 GPM	72 Specific Capacity 20	7 ppm @ 5 min 8 ppm @ 5 min 10 ppm @ 5 min then trace	2017
City of Delano	Delano California	Pedro Nunez	(66) 771-3300	1000 feet	Well #40 16" \$553,480	Flooded Reverse Circulation Rotary	900 GPM	6 GPM / Foot of drawdown	2 ppm @ 5 min then trace of sand	2016
Golden State Water Company	Norwalk California	Danielle Jones	(909) 937-0111	1440 feet	Dave well #2 18" \$1,325,461	Flooded Reverse Circulation Rotary	2000 GPM	72 Specific Capacity	3 ppm @ 5 min then trace of sand	2014
Arvin-Edison Water Storage District	Tejon California	Jeevan Mukher	(66) 854-5573	3 wells 1500 feet	Tejon 100 Well Project 18" \$2,300,000	Flooded Reverse Circulation Rotary	4100 GPM 4750 GPM 4500 GPM	91 Specific Capacity 109	3 ppm @ 5 min 0 ppm @ 5 min 5 ppm @ 5 min then @ 5 min	2017

See attached additional project experience references. *PMJ*

Name of project:

Drilling and Construction and Testing for Community Center Well

Location of project:

Main St and State St
Farmington City, UT

Name, address, & telephone number of owner:

Farmington City
720 West 100 North
Farmington, UT 84025
(801) 359-5565

Architect or Engineer

Mark Chandler

Architect or Engineer Phone Number

(801) 755-7730

Name, address, & telephone number of Construction Manager:

Zim Industries, Inc
4545 E Lincoln Ave
Fresno, CA 93725
(559) 834-1551

Brief description of work involved:

Drilled 18" x 700' water well
gravel pack, cement, zone tests, swab development and test development

Total value of construction(including change orders):

\$508,416.23

Original schedule completion date:

December 14, 2012

Actual date of completion:

June 5, 2012

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

No claims or disputes filed.

1 Name, address, & telephone number of owner:

CALIFORNIA WATER SERVICE

1720 N FIRST ST

SAN JOSE, CA 95112

209-993-6472

2 Name of project:

Dixon 04-02 New Well

3 Location of project:

Dixon California

Solano County

4 Brief description of work involved:

Drilled Water Well 18" x 1326', Performed isolated

aquifer zone testing, Caliper survey, Swabbing,

Test pumping and development,

5 Contract amount:

\$1,074,805.00

6 Date of completion of contract:

2/12/16 - 9/30/16

7 Name, address, & phone number of architect or engineer:

CALIFORNIA WATER SERVICE

1720 N FIRST ST

SAN JOSE, CA 95112

209-993-6472

8 Name of owner's project engineer:

MARY KEAN

408-367-8388

9 Contractor's Project Manager - Brian Zimmerman

10. Contractor's Superintendent - Victor Chavez

11. Contract was completed within allotted time.

12. No claims or disputes filed

- 1 Name, address, & telephone number of owner:
EPC Corporation
6615 West Sate Ave Suite 2
Glendale AZ, 85301
(623) 934-0225
- 2 Name of project:
P-331 New Potable Water Well
- 3 Location of project:
Lemoore NAS
Lemoore, CA
- 4 Brief description of work involved:
Drill Well 16" X 1120' Depth, Zone Tests, Airlift development, Geophysical logging,
Development and test pumping
- 5 Contract amount:
\$1,226,232.00
- 6 Date of completion of contract:
9/1/2013
- 7 Name, address, & phone number of architect or engineer:
EPC Corporation
6615 West Sate Ave Suite 2
Glendale AZ, 85301
(623) 934-0225
- 8 Name of owner's project engineer:
Heath Collins
(623) 934-0225

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.
No claims or disputes filed

1 Name, address, & telephone number of owner:

RIVERDALE PUD

20896 MARSBURY RD

RIVERDALE, CA 95636

559-867-3838

2 Name of project:

DRILL WELL #7

3 Location of project:

ALVA AND EARL STRET

RIVERDALE CA

4 Brief description of work involved:

DRILLED 16' x 1822' WELL, 2" SOUNDING TUBE, 3" GRAVEL FEED TUBE

SWABBING, TEST PUMP AND DEVELOPMENT.

5 Contract amount:

\$927,841

6 Date of completion of contract:

6/16/16 - 7/8/16

7 Name, address, & phone number of architect or engineer:

PROVOST AND PRITCHARD CONSULTING GROUP

286 W CROMWELL AVE

FRESNO, CA 93711

559-449-2700

8 Name of owner's project engineer:

KEITH MORTENSON

559-449-2700

9 Contractor's Project Manager - Brian Zimmerman

10. Contractor's Superintendent - Victor Chavez

11. Contract was completed within allotted time.

12. No claims or disputes filed.

- 1) Name, address, & telephone number of owner:
SANTA ROSA RANCHERIA
17225 JERSEY AVE
LEMOORE, CA 93245
559-925-7773
- 2) Name of project:
DRILL WELL #3
- 3) Location of project:
17225 JERSEY AVE
LEMOORE, CA
- 4) Brief description of work involved:
DRILLED 16' x 1150' WELL, 2" SOUNDING TUBE, 3" GRAVEL FEED TUBE
SWABBING, TEST PUMP AND DEVELOPMENT, PERFORM ISOLATED AQUIFER
ZONE TESTS
- 5) Contract amount:
\$740,906
- 6) Date of completion of contract:
10/1/15 - 1/29/16
- 7) Name, address, & phone number of architect or engineer:
SANTA ROSA RANCHERIA
17225 JERSEY AVE
LEMOORE, CA 93245
559-925-7773
- 8) Name of owner's project engineer:
NORMAN QUINN
559-925-7773

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.
No claims or disputes filed

1 Name, address, & telephone number of owner:

DESIGN AND CONSTRUCTION MANAGEMENT, UC DAVIS, TULARE CAMPUS

18830 RD 112

TULARE, CA 93274

559-688-7131

2 Name of project:

SOUTH VALLEY ANIMAL LABORATORY WELL

3 Location of project:

18830 RD 112

TULARE CA

4 Brief description of work involved:

DRILLED 16' x 890' WELL, 2" SOUNDING TUBE, 3" GRAVEL FEED TUBE

SWABBING, TEST PUMP AND DEVELOPMENT, PERFORM ISOLATED AQUIFER

ZONE TESTS

5 Contract amount:

\$785,281

6 Date of completion of contract:

6/23/16 - 7/22/16

7 Name, address, & phone number of architect or engineer:

PROWEST CONSTRUCTORS

22710 PALOMAR ST

WILDOMAR, CA 92525

951-678-1038

8 Name of owner's project engineer:

RICHARD SLATER

909-821-8764

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

No claims or disputes filed

Name, address, & telephone number of owner:

CITY OF CERES

2220 MAGNOLIA STREET

CERES, CA 95307

(209) 538-5792

2 Name of project:

DRILL WELLS 41 AND 42

3 Location of project:

STANISLOUS COUNTY

4 Brief description of work involved:

Two Wells - Mobilization, 16" x 370' and 16" x 340'. Set two 30" Conductors,

Geophysical Logs, Test Pumping, Swabbing and Well Videos

Isolated aquifer zone tests

5 Contract amount:

\$621,561.00

6 Date of completion of contract:

Started November 2014 - Finished March 2015

7 Name, address, & phone number of architect or engineer:

Provost and Pritchard

286 W Cromwell Ave

Fresno, CA 93711

(559) 675-7817

8 Name of owner's project engineer:

Herb Simmons

(559) 675-7817

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

No claims or disputes filed

Name, address, & telephone number of owner:

Grizzly Construction

PO BOX 26793

Fresno, CA 93729

(559) 323-1200

2 Name of project:

DRILL WELL #6

3 Location of project:

W WOOD AND S LAFAYETTE

Riverdale, CA

4 Brief description of work involved:

Mobilization, 16" x 1860' Well, Set 30" Conductor, Zone Tests

Swabbing, Test Pumping, Concrete Pump Pad. Pump Motor and Pump Bowls

Contract amount:

\$724,430.00

6 Date of completion of contract:

Started November 2013 - Finished June 2014

7 Name, address, & phone number of architect or engineer:

Provost and Pritchard

286 W Cromwell Ave

Fresno, CA 93711

(559) 675-7817

8 Name of owner's project engineer:

Herb Simmons

(559) 675-7817

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.
No claims or disputes filed

1 Name, address, & telephone number of owner:
Citrus Heights Water District
6230 Sylvan Rd
Citrus Heights, CA 95610
(916) 725-6873

2 Name of project:
Skycrest Well

3 Location of project:
Southgrove and Wisconsin
Citrus Heights, CA

4 Brief description of work involved:
Drill Well 18" X 390' Depth; 60' Conductor, 3 Zone Tests, Airlift development,
Geophysical logging, Development and test pumping

5 Contract amount:
\$494,944.00

6 Date completed:
August 21, 2014

7 Name, address, & phone number of architect or engineer:
NV5
2525 Natomas Dr, Suite 300
Sacramento, CA
(916) 641-9100

8 Name of owner's project engineer:
Linda Scroggs
(916) 641-9100

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.
No claims or disputes filed

Name, address, & telephone number of owner:

COUNTY OF TULARE

2800 W. BURREL AVE

VISALIA, CA 93291

(209) 733-6977

2 Name of project:

EAST PORTVILLE EMERGENCY WATER PROJECT

3 Location of project:

PORTERVILLE, CA

4 Brief description of work involved:

Mobilization, 16" x 1155' Well, Set 36" Conductor, Zone Tests

Swabbing, Test Pumping, Well Video

Contract amount:

\$849,145.00

6 Date of completion of contract:

Started August 2015 - Estimated Finish January 2016

7 Name, address, & phone number of architect or engineer:

COUNTY OF TULARE

2800 W. BURREL AVE

VISALIA, CA 93291

(209) 733-6977

8 Name of owner's project engineer:

Denice England

(209) 733-6977

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

No claims or disputes filed

Name, address, & telephone number of owner:

PROWEST CONSTRUCTORS

22710 PALOMAR ST

WILDOMAR, CA 92595

(909) 821-8764

2 Name of project:

UC DAVID - TULARE WELL

3 Location of project:

AVE 184 AND RD 112

Tulare, CA

4 Brief description of work involved:

Mobilization, 16" x 812'. Set 30" Conductor, Zone Tests, E-Log Survey
Test Pumping, Swabbing and Well Videos.

Contract amount:

1\$566,840.00

6 Date of completion of contract:

Started July 2015 - Finished October 2015

7 Name, address, & phone number of architect or engineer:

PROWEST CONSTRUCTORS

22710 PALOMAR ST

WILDOMAR, CA 92595

(909) 821-8764

3 Name of owner's project engineer:

Richard Slater

(909) 821-8764

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

No claims or disputes filed

1- Name, address, & telephone number of owner:

City of Porterville

291 N Main St

Porterville, CA 93257

(559) 782-7462

2 Name of project:

Drill Well 32

3 Location of project:

RD 208 AND AVE 128

Porterville, CA

4 Brief description of work involved:

Mobilization, 16" x 780' Well, Set 36" Conductor, Zone Tests, Swabbing,
Test Pumping, Well Video

Contract amount:

\$463,195.00

6 Date of completion of contract:

Started August 2013 - Finished December 2013

7 Name, address, & phone number of architect or engineer:

Dee Jasper and Associates

15 W Putnam Ave

Porterville, CA 93257

(559) 791-9286

Name of owner's project engineer:

Curtis Skaggs

(559) 791-9286

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.
No claims or disputes filed

Name of project:

Drilling and Construction and testing for 4800 West Well

Location of project:

W 12400 S
Riverton City, UT

Name, address, & telephone number of owner:

Riverton City
12830 South Redwood Rd
Riverton City, UT 84065
(801) 913-6801

Architect or Engineer

Clint Dilley

Architect or Engineer Phone Number

(801) 955-5605

Name, address, & telephone number of Construction Manager:

Zim Industries, Inc
4545 E Lincoln Ave
Fresno, CA 93725
(559) 834-1551

Brief description of work involved:

Drilled 16" x 1000' water well
gravel pack, cement, swab development and test development

Total value of construction(including change orders):

\$492,888.21

Original schedule completion date:

Februaury 27, 2012

Actual date of completion:

April 22, 2012

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

Name of project:
Drill Arroyo Seco Well

Location of project:
Van Buren and 191st
Scottsdale, AZ

Name, address, & telephone number of owner:
Van Buren and 191st Water Well, LLC
6900 E Second St
Scottsdale, AZ 85251-5305
(480) 946-9635

Architect or Engineer
Mark Voigt

Architect or Engineer
(480) 946-9635

Name, address, & telephone number of Construction Manager:
Zim Industries, Inc
4545 E Lincoln Ave
Fresno, CA 93725
(559) 834-1551

Brief description of work involved:
Drilled 18" x 1200' water well
gravel pack, cement, swab development & test pumped.

Total value of construction(including change orders):
\$577,488.00

Original schedule completion date:
May 1, 2012

Time extensions granted(number of days):
21

Actual date of completion:
May 22, 2012

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.

Name, address, & telephone number of owner:

City of Fresno - Water Division

1910 E. University

Fresno, CA 93703

(559) 621-5350

2 Name of project:

DRILL WELL 236A

3 Location of project:

765 E SAN JOSE AVE

Fresno, CA

4 Brief description of work involved:

Mobilization, 18" x 825' Well, Set 36" Conductor, Swabbing, Test Pumping.

Television Survery

Contract amount:

\$578,163.50

6 Date of completion of contract:

Started January 2014 - Finished June 2014

7 Name, address, & phone number of architect or engineer:

City of Fresno - Water Division

1910 E. University

Fresno, CA 93703

(559) 621-5350

8 Name of owner's project engineer:

Cynthia Fischer

(559) 621-5350

Contractor's Project Manager - Brian Zimmerman.

Contractor's Superintendent - Victor Chavez.

Contract was completed within allotted time.

Name, address, & telephone number of owner:

STEVE DOVALI CONSTRUCTION

8461 E OLIVE AVE

FRESNO, CA 93727

(559) 255-7603

2 Name of project:

REGIONAL CONSOLIDATION OF THREE WATER SYSTEMS

3 Location of project:

9th Ave and Hanford Armona

Hanford, CA

4

Brief description of work involved:

Mobilization, 16" x 1522', Set 30" Conductor, E-Log, Swabbing

Test Pumping, Pump Motor, Pump Bowl

Contract amount:

\$1,115,670.00

6

Date of completion of contract:

Started February 2015 - Well Finished June 2015

Estimated date of completion of pump portion - February 2016

7

Name, address, & phone number of architect or engineer:

KENNETH D SCHMIDT AND ASSOCIATES

600 W SHAW

FRESNO, CA 93704

(559) 224-4412

8

Name of owner's project engineer:

KEN SCHMIDT

(559)224-4412

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

Name, address, & telephone number of owner:

CITY OF WOODLAND

300 FIRST STREET

WOODLAND, CA 95695

(805) 453-8267

2 Name of project:

ASR WELL 30 & MONITORING WELL (MW-30)

ASR WELL 29 & MONITORING WELL (MW-29)

3 Location of project:

YOLO COUNTY

4 Brief description of work involved:

4 Wells Mobilization, 3" x 905'(MW) x 2 20" x 453'(ASR)Well x 2.

Geophysical and Caliper Surveys, Swabbing and Test Pumping

Contract amount:

\$2,183,827.16

6 Date of completion of contract:

Started October 2015 - Estimated Finish February 2016

7 Name, address, & phone number of architect or engineer:

WEST YOST

2020 RESEARCH PARK DRIVE SUITE 100

DAVIS, CA 95618

(805) 453-8267

8 Name of owner's project engineer:

KEN LOY

(530) 756-5905

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

Name, address, & telephone number of owner:

CITY OF CORCORAN - PUBLIC WORKS

832 WHITLEY AVE

CORCORAN, CA 93212

(209) 992-2151

2

Name of project:

DRILL WELL 11A

3

Location of project:

4TH AND WAUKENA

Corcoran, CA

4

Brief description of work involved:

Mobilization, 18" x 16" x 1491' Well, Set 36" Conductor, E-Log, Caliper Log

Swabbing, Test Pumping

Contract amount:

\$732,421.00

6

Date of completion of contract:

Started August 2015 - Finished October 2015

7

Name, address, & phone number of architect or engineer:

CITY OF CORCORAN - PUBLIC WORKS

832 WHITLEY AVE

CORCORAN, CA 93212

(209) 992-2151

8

Name of owner's project engineer:

Baldo Rodriguez

(209) 992-2151

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

Name, address, & telephone number of owner:

Riverdale PUD

20896 Malsbury St

Riverdale, CA 93656

(559) 867-3838

2 Name of project:

ARESENIC COMPLIANCE PROJECT 16" x 1822'

Production Well

3 Location of project:

ALVA STREET AND EARL

Riverdale, CA

4 Brief description of work involved:

Mobilization, Completed 16" x 1822' Well,

Set 20' Conductor, Airlifted and Swabbed Well,

Test Pumped Well

5 Contract amount:

\$595,441.00

6 Date of completion of contract:

Started June 2015 - Finished August 2015

7 Name, address, & phone number of architect or engineer:

Provost and Pritchard

286 W Cromwell Ave

Fresno, CA 93711

(559) 675-7817

8 Name of owner's project engineer:

Herb Simmons

(559) 675-7817

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

1 Name, address, & telephone number of owner:

SAN JOSE WATER
110 W TAYLOR ST
SAN JOSE, CA 95196
(408) 279-7886

2 Name of project:

MERIDIAN STATION WELL #6

3 Location of project:

1000 MERIDIAN DR
SAN JOSE CA

4 Brief description of work involved:

Drilled Water Well- 18" x 753', 363' of gravel fill pipe
328' of sounding pipe, 20 hrs of well development

5 Contract amount:

\$471,207.00

6 Date of completion of contract:

3/20/2013

7 Name, address, & phone number of architect or engineer:

SAN JOSE WATER
110 W TAYLOR ST
SAN JOSE, CA 95196
(408) 279-7886

8 Name of owner's project engineer:

THOMAS GEE
(408) 279-7886

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.

1 Name, address, & telephone number of owner:

Riverstone Development

7405 N First St

Fresno, CA 93720

(559) 237-7000

2 Name of project:

DRILL WELL 21ST AVE AND FREMONT

3 Location of project:

DRILL WELL 21ST AVE AND FREMONT

Lemoore, CA

4 Brief description of work involved:

Mobilization, 16" x 900' Well, Set 32" Conductor, E-Log and Caliper Log

Swabbing, Test Pumping,

Contract amount:

\$475,030.00

6 Date of completion of contract:

Started August 2014 - Finished November 2014

7 Name, address, & phone number of architect or engineer:

Valley Development Co

265 E River Park Circle, Suite 310

Fresno, CA 93720

(559) 392-1832

8 Name of owner's project engineer:

Brian Partridge

(559) 392-1832

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.

1 Name, address, & telephone number of owner:
CITY OF LEMOORE
711 CINNAMON DRIVE
LEMOORE, CA 93245
559-733-0440

2 Name of project:
PRODUCTION WELL #13

3 Location of project:
WEST HILLS COLLEGE/BUSH STREET

4 Brief description of work involved:
Drilled Water Wells - (1) pilot hole to '1400, 880' of gravel fill pipe
540' of sounding pipe, 80 hrs of well development.

5 Contract amount:
\$815,164.00

6 Date of completion of contract:
3/10-5/10

7 Name, address, & phone number of architect or engineer:
CITY OF LEMOORE
711 CINNAMON DRIVE
LEMOORE, CA 93245
559-733-0440

8 Name of owner's project engineer:
DAVID WLASCHIN
559-733-0440

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.

Name of project:

Drill O'Neill Ranch Well

Location of project:

Soquel Dr and 41st ave
Santa Cruz, CA

Name, address, & telephone number of owner:

Soquel Creek Water District
5180 Soquel Dr
Capitola, CA 95010
(831) 475-8500

Architect or Engineer

Jarrod Swett

Architect or Engineer

(831) 475-8500

Name, address, & telephone number of Construction Manager:

Zim Industries, Inc
4545 E Lincoln Ave
Fresno, CA 93725
(559) 834-1551

Brief description of work involved:

Drilled 16" x 1700' water well
gravel pack, cement, swab development & test pumped.

Total value of construction(including change orders):

\$611,660.00

Original schedule completion date:

August 20, 2012

Time extensions granted(number of days):

39

Actual date of completion:

September 28, 2012

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

Name of project:
Drill Wells 13 and 14

Location of project:
Naval Air Station Lemoore
Lemoore, CA

Name, address, & telephone number of owner:
City of Lemoore
119 Fox St
Lemoore, CA 93245
(559) 924-6735

Architect or Engineer
David Jacobs

Architect or Engineer Phone Number
(559) 733-0440

Name, address, & telephone number of Construction Manager:
Zim Industries, Inc
4545 E Lincoln Ave
Fresno, CA 93725
(559) 834-1551

Brief description of work involved:
Drilled 2 16" x 1500' water wells
gravel pack, cement, swab development & test pumped.

Total value of construction(including change orders):
\$1,951,234.78

Original schedule completion date:
March 5, 2012

Time extensions granted(number of days):
92

Actual date of completion:
June 5, 2011

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.

1 Name, address, & telephone number of owner:
CITY OF DAVIS
1717 FIFTH STREET
DAVIS, CA 95616
(916) 757-5686

2 Name of project:
PRODUCTION WELL #34

3 Location of project:
COMMUNITY GARDENS & FIFTH STREET

4 Brief description of work involved:
Drilled Water Wells - (1) pilot hole to '1593, 633' of gravel fill pipe
833' of sounding pipe, 23.5 hrs of well development

5 Contract amount:
\$815,164.00

6 Date of completion of contract:
10/09-1/10

7 Name, address, & phone number of architect or engineer:
CITY OF DAVIS
1717 FIFTH STREET
DAVIS, CA 95616
(916) 757-5686

8 Name of owner's project engineer:
Matt Deussenberry
(916) 757-5686

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.

Name of project:

Drill Arroyo Seco Well

Location of project:

Van Buren and 191st
Scottsdale, AZ

Name, address, & telephone number of owner:

Van Buren and 191st Water Well, LLC
6900 E Second St
Scottsdale, AZ 85251-5305
(480) 946-9635

Architect or Engineer

Mark Voigt

Architect or Engineer

(480) 946-9635

Name, address, & telephone number of Construction Manager:

Zim Industries, Inc
4545 E Lincoln Ave
Fresno, CA 93725
(559) 834-1551

Brief description of work involved:

Drilled 18" x 1200' water well
gravel pack, cement, swab development & test pumped.

Total value of construction(including change orders):

\$577,488.00

Original schedule completion date:

May 1, 2012

Time extensions granted(number of days):

21

Actual date of completion:

May 22, 2012

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

Name of project:

Drill Barney Well 18" x 465'

Location of project:

Barney - Canal and Barney St

Crowley - Crowley and Rhonda Ave

Anderson, CA

Name, address, & telephone number of owner:

Anderson - Cottonwood Irrigation District

2810 Siver St

Anderson, CA 96007

(530) 365-7329

Architect or Engineer

Jerrod Swett

Architect or Engineer Phone Number

(530) 365-7329

Name, address, & telephone number of Construction Manager:

Zim Industries, Inc

4545 E Lincoln Ave

Fresno, CA 93725

(559) 834-1551

Brief description of work involved:

Drilled 14" x 795' water well

gravel pack, cement, swab development and test development

Total value of construction(including change orders):

\$745,605.00

Original schedule completion date:

October 15, 2012

Time extensions granted(number of days):

9

Actual date of completion:

October 24, 2012

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

Name, address, & telephone number of owner:

SALINAS PUMP COMPANY

21935 ROSEHART WAY

SALINAS, CA 93908

831-422-4522

2 Name of project:

BISHOP WELL 2-A

3 Location of project:

DRIVING RANGE OF LAGUNA SECA

4 Brief description of work involved:

Drilled Water Wells - (1) pilot hole to 720', 375' of gravel fill pipe
350' of stainless steel tremie pipe, 213.5 hrs of well development

Contract amount:

\$356,825.00

6 Date of completion of contract:

9/18/10-12/31/10

7 Name, address, & phone number of architect or engineer:

SALINAS PUMP COMPANY

21935 ROSEHART WAY

SALINAS, CA 93908

831-422-4522

8 Name of owner's project engineer:

AARON THORNTON

831-422-4522

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

Name, address, & telephone number of owner:

CALIFORNIA WATER SERVICE

1720 N FIRST ST

SAN JOSE, CA 95112

209-993-6472

2 Name of project:

SSF STATION 1-22 SOUTH SAN FRANCISCO

3 Location of project:

80 CHESTNUT AVE

4 Brief description of work involved:

Drilled Water Wells - (1) pilot hole to 594', 175' of 3" grade b gravel feed pipe
330' of 2" 304SS steel sounding tube, 86.5 hrs of well development

Contract amount:

\$335,850.00

6 Date of completion of contract:

8/21/10-12/31/10

7 Name, address, & phone number of architect or engineer:

CALIFORNIA WATER SERVICE

1720 N FIRST ST

SAN JOSE, CA 95112

209-993-6472

8 Name of owner's project engineer:

TED COUGHLIN

209-993-6472

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

Name, address, & telephone number of owner:

CALIFORNIA WATER SERVICE

1720 N FIRST ST

SAN JOSE, CA 95112

209-993-6472

2

Name of project:

DRILL STOCKTON WELL 21-02

3

Location of project:

WEST H STREET

4

Brief description of work involved:

Drilled Water Wells - (1) pilot hole to 359', 175' of gravel feed pipe
175' of 3" sch. 40 steel sounding tube, 40.5 hrs of well development

Contract amount:

\$291,261.00

6

Date of completion of contract:

11/10/10-3/31/11

7

Name, address, & phone number of architect or engineer:

CALIFORNIA WATER SERVICE

1720 N FIRST ST

SAN JOSE, CA 95112

209-993-6472

8

Name of owner's project engineer:

TED COUGHLIN

209-993-6472

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.

Name, address, & telephone number of owner:

KAWEAH CONSTRUCTION

1911 N FINE AVE

FRESNO, CA 93747

209-745-2640

2 Name of project:

NEW PRODUCTION WELL AT CITY OF GALT WASTE WATER TREATMENT PLANT

3 Location of project:

TWIN CITIES RD AND 99

4 Brief description of work involved:

Drilled Water Wells - (1) pilot hole to 572', 412' of gravel fill pipe
163' of sounding pipe, 44 hrs of well development

Contract amount:

\$260,187.00

6 Date of completion of contract:

5/15/00-4/27/11

7 Name, address, & phone number of architect or engineer:

KAWEAH CONSTRUCTION

1911 N FINE AVE

FRESNO, CA 93747

209-745-2640

8 Name of owner's project engineer:

JOE LAWRENCE

209-745-2640

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.

Name, address, & telephone number of owner:

CITY OF SANTA BARBARA

630 GARDEN ST

SANTA BARBARA, CA 93102

(805) 560-7544

2 Name of project:

ALAMEDA PARK WELL RELOCATION PROJECT

3 Location of project:

ALAMEDA PARK

4 Brief description of work involved:

Mobilization, 12" x 480'. Set Conductor, Noise Control, Caliper Survey
Geophysical Logs, Test Pumping, Swabbing and Well Videos. Well Abandonment
of Existing Well

Contract amount:

\$1,050,225.00

6 Date of completion of contract:

Started February 2015 - Finished May 2015

7 Name, address, & phone number of architect or engineer:

PUEBLO WATER RESOURCES

4478 MARKET ST SUITE 705

VENTURA, CA 93003

(805) 644-0470

8 Name of owner's project engineer:

ROBERT MARKS

(805) 644-0470

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.

Name, address, & telephone number of owner:

Town of Discovery Bay

1800 Willow Lake Rd

Discovery Bay, CA 94505

(925) 634-1131

2 Name of project:

DRILL PRODUCTION WELL #7

3 Location of project:

NEWPORT DR AND CAPSTONE PL

Town of Discovery Bay

4 Brief description of work involved:

Mobilization, 18" x 348' Well, Set 32" Conductor, Geophysical Log,
Test Pumping, Plumbness and Alignment Test

Contract amount:

\$370,555.00

6 Date of completion of contract:

Started September 2013 - Finished December 2013

7 Name, address, & phone number of architect or engineer:

Ludorff and Scalomini

500 First Street

Woodland, CA 95695

(530) 661-0109

8 Name of owner's project engineer:

Scott Lewis

(530) 661-0109

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

1 Name, address, & telephone number of owner:
SELF-HELP ENTERPRISES
8445 W ELOWIN CRT
VISALIA, CA 93290
559-967-0665

2 Name of project:
parksdale well no 4

3 Location of project:
MADERA COUNTY SERVICE AREA 3

4 Brief description of work involved:
Drilled Water Wells - (1) pilot hole to 505', 220' of 8" column pipe line and shaft
35.5 hrs of well development, construct pump site,
including masonry walls, discharge piping, electrical, and underground piping

5 Contract amount:
\$624,596.12

6 Date of completion of contract:
8-09 to 4-10

7 Name, address, & phone number of architect or engineer:
SELF-HELP ENTERPRISES
8445 W ELOWIN CRT
VISALIA, CA 93290
559-967-0665

8 Name of owner's project engineer:
MIKE PARR
559-967-0665

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.

Name of project:

Drill Well at Red Bluff Station

Location of project:

Wiley Wells Rd and I10
Red Bluff, Ca

Name, address, & telephone number of owner:

Southern California Edison
PO BOX 700
Rosemead, CA 91770

Architect or Engineer

Dave Kindt

Architect or Engineer Phone Number

Name, address, & telephone number of Construction Manager:

Zim Industries, Inc
4545 E Lincoln Ave
Fresno, CA 93725
(559) 834-1551

Brief description of work involved:

Drilled 12" x 692' water well
gravel pack, cement, swab development and test development, Furnish and Install submersible
pump.

Total value of construction(including change orders):

Original schedule completion date:

Time extensions granted(number of days):

Actual date of completion:

2011

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

1 Name, address, & telephone number of owner:

CITY OF FRESNO

1721 VAN NESS AVE

FRESNO, CA 93721

(559) 621-5600

2 Name of project:

Drill Well at PS 30B

3 Location of project:

Belmont and Maple

Fresno CA

4 Brief description of work involved:

Drilled Water Well - 16" x 472', 220' of gravel fill pipe

225' of sounding pipe, 24 Hours of swabbing, 62 hrs of well development

5 Contract amount:

\$224,923.00

6 Date of completion of contract:

5/29/2013

7 Name, address, & phone number of architect or engineer:

CITY OF FRESNO

1721 VAN NESS AVE

FRESNO, CA 93721

(559) 621-5600

8 Name of owner's project engineer:

JIM POLSGROVE

(559) 621-5600

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

1 Name, address, & telephone number of owner:
CITY OF FRESNO
1721 VAN NESS AVE
FRESNO, CA 93721
(559) 621-5600

2 Name of project:
Drill Two Wells at PS 345

3 Location of project:
185 S Burgan
Fresno CA

4 Brief description of work involved:
Drilled 2 Water Wells- 12" x 835', 620' of gravel fill pipe
240' of sounding pipe, 24 Hours of swabbing, 48 hrs of well development

5 Contract amount:
\$531,160.00

6 Date of completion of contract:
1/23/2013

7 Name, address, & phone number of architect or engineer:
CITY OF FRESNO
1721 VAN NESS AVE
FRESNO, CA 93721
(559) 621-5600

8 Name of owner's project engineer:
JIM POLSGROVE
(559) 621-5600

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.

Name, address, & telephone number of owner:

Consolidated Irrigation District

2255 Chandler St

Selma, CA 93662

(559) 896-1660

2 Name of project:

Recovery Well 101 and 102

3 Location of project:

SOUTH AND HIGHLAND BASIN RECOVERY WELLS

Fresno County

4 Brief description of work involved:

Two Wells - Mobilization, 18" x 500' and 18" x 520' Wells, Set two 36" Conductors

E- Log, Swabbing, Test Pumping

Contract amount:

\$451,577.50

6 Date of completion of contract:

Started September 2014 - Finished January 2015

7 Name, address, & phone number of architect or engineer:

Provost and Pritchard

286 W Cromwell Ave

Fresno, CA 93711

(559) 675-7817

8 Name of owner's project engineer:

Travis Vickers

(559) 212-0430

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

Name, address, & telephone number of owner:

Island Union Elementary School

7799 21st Ave

Lemoore, CA 932453

(209) 239-9080

2 Name of project:

DRILL WELL 21ST AVE AND FREMONT

3 Location of project:

DRILL WELL 21ST AVE AND FREMONT

Lemoore, CA

4 Brief description of work involved:

Mobilization, 10" x 690' Well - PVC pipe, Set Conductor, Geophysical and Caliper Log Swabbing, Test Pumping, Well Disinfection

Contract amount:

\$275,550.00

6 Date of completion of contract:

Started June 2014 - Finished October 2014

7 Name, address, & phone number of architect or engineer:

NV 5

8795 Folsom Blvd, Suite 102

Sacramento, CA 95826

(916) 379-0690

8 Name of owner's project engineer:

Linda Scroggs

(916) 379-0690

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

Name, address, & telephone number of owner:

City of Firebaugh

1133 P St

Firebaugh, CA 93622

(559) 659-2412

2 Name of project:

DRILL WELL #17

3 Location of project:

VASQUEZ AND 15TH

Firebaugh, CA

4 Brief description of work involved:

Mobilization, 16" x 218' Well, Set 30" Conductor, Geophysical Log

Swabbing, Test Pumping, Well Disinfection

Contract amount:

\$172,705.00

6 Date of completion of contract:

Started May 2014 - Finished July 2014

7 Name, address, & phone number of architect or engineer:

KENNEDY/JENKS CONSULTANTS

10850 GOLD CNETER DR

RANCHO CORDOVA, CA 95670

(916) 858-2700

8 Name of owner's project engineer:

ALEX PETERSON

(916) 858-2700

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

Name, address, & telephone number of owner:

County of Madera

2037 West Celeveland Ave

Madera, CA 93637

(559) 675-7817

2 Name of project:

DRILL MDP5 CONTINENTAL ESTATES WELL #4

3 Location of project:

MARCIEL AND RD 36

Madera, CA

4 Brief description of work involved:

Mobilization, 12" x 561' Well, Set Conductor, E-Log and Caliper Log
Swabbing, Test Pumping, Plumbness and Alignment Test

Contract amount:

1366,518.00

6 Date of completion of contract:

Started August 2014 - Finished November 2014

7 Name, address, & phone number of architect or engineer:

Wood Rodgers

3301 C St Building 100-B

Sacramento, CA 95816

(916)341-7760

8 Name of owner's project engineer:

Larry Ernst

(916)341-7760

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

Name, address, & telephone number of owner:

LONDON COMMUNITY SERVICES DISTRICT

37835 KATE RD

DINUBA, CA 93618

(559) 591-5152

2 Name of project:

DRILL WATER WELL #5

3 Location of project:

LONDON, CA

TULARE COUNTY

4 Brief description of work involved:

Mobilization, 14" x 510' Well, Set 30" Conductor, E-Log

Swabbing, Test Pumping, Well Video

Contract amount:

\$545,200.00

6 Date of completion of contract:

Started September 2015 - Estimated Finish January 2016

7 Name, address, & phone number of architect or engineer:

KELLER & WEGLEY

PO BOX 911

VISALIA, CA 93279 - 0911

(559) 732-7938

8 Name of owner's project engineer:

Jim Wegley

(559) 732-7938

Contractor's Project Manager - Brian Zimmerman

Contractor's Superintendent - Victor Chavez

Contract was completed within allotted time.

Name, address, & telephone number of owner:

Fair Oaks Water District

10326 Fair Oaks Blvd

Fair Oaks, CA 95628

(916) 257-5261

2 Name of project:

MADISON WELL

3 Location of project:

ALAIRE VIE DR AND MADISON AVE

Fair Oaks, CA

4 Brief description of work involved:

Mobilization, 18" x 566' Well, Set 34" Conductor, Geophysical Log, Caliper Log
Swabbing, Test Pumping, Plumbness and Alignment Test, Pump Pedestal

Contract amount:

\$545,925.00

6 Date of completion of contract:

Started June 2014 - Finished November 2014

7 Name, address, & phone number of architect or engineer:

GEI CONSULTANTS

5100 CALIFORNIA AVE SUITE 227

BAKERSFIELD, CA 93309

(661) 327-7601

8 Name of owner's project engineer:

RICHARD SCHATZ

(661) 327-7601

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.

Name, address, & telephone number of owner:

CITY OF CERES

2220 MAGNOLIA STREET

CERES, CA 95307

(209) 538-5792

2 Name of project:

DRILL WELLS 41 AND 42

3 Location of project:

STANISLOUS COUNTY

4 Brief description of work involved:

Two Wells - Mobilization, 16" x 370' and 16" x 340'. Set two 30" Conductors,
Geophysical Logs, Test Pumping, Swabbing and Well Videos

5 Contract amount:

\$621,561.00

6 Date of completion of contract:

Started November 2014 - Finished March 2015

7 Name, address, & phone number of architect or engineer:

Provost and Pritchard

286 W Cromwell Ave

Fresno, CA 93711

(559) 675-7817

8 Name of owner's project engineer:

Herb Simmons

(559) 675-7817

Contractor's Project Manager - Brian Zimmerman.
Contractor's Superintendent - Victor Chavez.
Contract was completed within allotted time.

Name, address, & telephone number of owner:

Granville Homes Inc

1396 WEST HERNDON AVE, SUITE 101

FRESNO, CA 93711

(559) 593-3448

2 Name of project:

DRILL PRODUCTION WELL #369

3 Location of project:

FRIANT AND COPPER

Fresno Ca

4 Brief description of work involved:

Mobilization, 16" x 623', Set 32" Conductor, Geophysical Log, Swabbing
Test Pumping, Television Survey

Contract amount:

\$481,461.00

6 Date of completion of contract:

Started October 2014 - Finished January 2015

7 Name, address, & phone number of architect or engineer:

Granville Homes Inc

1396 WEST HERNDON AVE, SUITE 101

FRESNO, CA 93711

(559) 593-3448

9 Name of owner's project engineer:

Rod Pate

(559) 593-3448

Contractor's Project Manager - Brian Zimmerman
Contractor's Superintendent - Victor Chavez
Contract was completed within allotted time.

Experience for Exploratory and Production Well Drilling Projects

Name, address, & telephone number of owner:

Taylorsville-Bennion Improvement District

1800 West 4700 South

Taylorsville, UT 84123

(801) 968-9081

2 Name of project:

Taylorsville Drill Well

Project #08016C.02

3 Location of project:

Meadowbrook Production Well

4 Brief description of work involved:

Drilled pilot hole to 1,050', reamed to 900'; 7 zone tests, casing and screen, gravel pack, well development, pump testing and well video

5 Contract amount:

\$762,435.00

6 Date of completion of contract:

Started April 2009 - Finished June 2009

7 Name, address, & phone number of architect or engineer:

Caldwell Richards Sorenson

2060 East 2100 South

Salt Lake City, UT 89109

(801) 359-5565

8 Name of owner's project engineer:

Mark Chandler

(801) 359-5565

Name, address, & telephone number of owner:

Taylorville-Bennion Impovement District

1800 West 4700 South

Taylorville, UT 84123

(801) 968-9081

2 Name of project:

Taylorville Drill Well 2nd Well

Project#08016C.02

3 Location of project:

Meadowbrook Production Well - 2nd well

4 Brief description of work involved:

Drilled pilot hole to 960', 6 zone tests, casing and screen,
gravel pack, well development, pump testing and well video

5 Contract amount:

\$811,678.50

6 Date of completion of contract:

Started Feb 2010 Finished June 2010

7 Name, address, & phone number of architect or engineer:

Caldwell Richards Sorenson

2060 East 2100 South

Salt Lake City, UT 89109

(801) 359-5565

8 Name of owner's project engineer:

Mark Chandler

(801) 359-5565

Name, address, & telephone number of owner:

City of Phoenix

200 West Washington Street, 7th Floor

Phoenix, AZ

(559) 782-7464

2 Name of project:

Well No. 299 - Project No. WS85010041 - Contract No. 120815

Phase 1 - Project No. 89-9787

3 Location of project:

NE 1/4 of the SE 1/4 of the SW 1/4

Section 36, Township 5N, Range 3E

4 Brief description of work involved:

Drilled pilot hole to 1,868', reamed to 1,433', 8 zone tests, casing and screen,
gravel pack, well development, pump testing and well video.

5 Contract amount:

\$1,132,430.00

6 Date of completion of contract:

Started July 2007 - Finished October 2007

7 Name, address, & phone number of architect or engineer:

Clear Creek Associates

6155 E. Indian School Road, Suite 200

Scottsdale, AZ 85251

(559) 585-2550

8 Name of owner's project engineer:

Gary Gin

(602) 495-5654

Name, address, & telephone number of owner:

City of Hanford

Department of Public Works

900 South 10th Avenue

Hanford, CA 93230

2 Name of project:

Public Water Supply Well # 45

3 Location of project:

North side of Lacey Blvd, 1,700 feet East of 10th Avenue

Hanford, CA

4 Brief description of work involved:

Drilled pilot hole to 1,630', 7 zone tests, casing, gravel packed, pump & surge development, and television survey

Contract amount:

\$772,385.00

6 Date of completion of contract:

Started June 2007 - Finished July 2007

7 Name, address, & phone number of architect or engineer:

City of Hanford

Department of Public Works

900 South 10th Avenue

Hanford, CA 93230

(559) 585-2550

8 Name of owner's project engineer:

Johnathan L. Doyel, P.E.

(559) 585-2550

Name, address, & telephone number of owner:

City of Davis

23 Russell Boulevard

Davis, CA 95616

(530) 757-5686

2 Name of project:

Test Hole & Production Well

CIP No. 8120

3 Location of project:

3608 Chiles Road

Davis, CA

4 Brief description of work involved:

Drill 2,005' test hole, 11 zone samples, drill 1,607' bore hole, casing & screen,
gravel pack, swab & airlift, test pump, DVD survey, well disinfection

5 Contract amount:

\$792,490.00

6 Date of completion of contract:

Started June 2006 - Finished November 2006

7 Name, address, & phone number of architect or engineer:

Public Works Department Davis California

1717 Fifth Street

Davis, CA 95616

(530) 757-5686

8 Name of owner's project engineer:

Robert A. Clark

(530) 757-5686

Name, address, & telephone number of owner:

Meritage Homes

17851 N. 85th Street, Suite 300

Scottsdale, AZ 85255

(480) 515-8100

2 Name of project:

Surprise Farms

Wells # 4 & # 5

Phase 5

3 Location of project:

183rd Avenue and Bell Road

Surprise, AZ

County of Maricopa

4 Brief description of work involved:

Drilled 17" pilot hole, 7 zone tests, reamed to 28", casing & screen, gravel pack, airlift & pump & surge development, & test pump

Contract amount:

\$538,041.00

6 Date of completion of contract:

Started October 2007 -- Finished March 2008

7 Name, address, & phone number of architect or engineer:

Clear Creek & Associates

200 West Washington Street, 8th Floor

Phoenix, AZ 85003

(602) 240-6860

8 Name of owner's project engineer:

Dave Wzosek

(602) 495-5654

1 Name, address, & telephone number of owner:
City of Hanford
Department of Public Works
900 South 10th Avenue
Hanford, CA 93230

2 Name of project:
Public Water Supply Well # 46
Lakewood Basin
Project # 620 808659

3 Location of project:
Lakewood Basin
Hanford, CA

4 Brief description of work involved:
Drilled 1,700' pilot hole, 6 zone tests, reamed borehole to 32 or 28", casing,
gravel pack, annular seal, pump and surge well development, and test pump.

5 Contract amount:
\$890,570.00

6 Date of completion of contract:
Started February 2008 - Finished April 2008

7 Name, address, & phone number of architect or engineer:
City of Hanford
Department of Public Works
900 South 10th Avenue
Hanford, CA 93230
(559) 585-2550

8 Name of owner's project engineer:
Johnathan L. Doyel, P.E.
(559) 585-2550

Name, address, & telephone number of owner:

Orangevale Water Co.

9031 Central Avenue

900 South 10th Avenue

Orangevale, CA 95662

2 Name of project:

OVWC Well # 3

3 Location of project:

Pecan Avenue & Central Avenue

Sacramento County

4 Brief description of work involved:

Drill 18" test hole to 290', drill 32" bore hole to 320', drill pilot hole to 640'

3 zone tests, casing, gravel pack, develop & test pump.

5 Contract amount:

\$485,069.00

6 Date of completion of contract:

Started February 2008 - Finished April 2008

7 Name, address, & phone number of architect or engineer:

Brown & Caldwell

2701 Prospect Park Dr.

Rancho Cordova, CA 95670

(530) 747-0650

8 Name of owner's project engineer:

Ken Worster

(530) 747-0650

Name, address, & telephone number of owner:

City of Mesa

P.O. Box 1466

Mesa, CA 95211-1466

2 Name of project:

Desert Well No. 11

Mesa, AZ

3 Location of project:

31 E. 3rd Place

Mesa, AZ

4 Brief description of work involved:

Drilled pilot hole to 940', 7 zone tests, 66 hrs of swabbing, and 46 hrs of test pumping.

Contract amount:

\$851,200.00

6 Date of completion of contract:

Started August 2009 - Finished October 2009

7 Name, address, & phone number of architect or engineer:

Kenneth D. Schmidt & Associates

7557 N. 16th Street, ste. 105

Phoenix, AZ 85020

(602) 997-7074

8 Name of owner's project engineer:

Peter Knudsen

(408) 644-2514

1 Name, address, & telephone number of owner:
City of Porterville
291 N. Main Street
Porterville, CA 93257
(559) 782-7464

2 Name of project:
Municipal Water Well # 31 - Project No. 89-9787
Phase 1 - Project No. 89-9787

3 Location of project:
Section 33, Township 21S, Route 27E
Orange Court & Olive Avenue

4 Brief description of work involved:
Drilled well to 650', 5 zone tests, casing and screen, gravel pack, air-lifting,
swabbing, cement, well development and test pumping

5 Contract amount:
\$395,395.00

6 Date of completion of contract:
Started January 2008 - Finished March 2008

7 Name, address, & phone number of architect or engineer:
Dee Jasper & Associates, Inc.
3701 Pegasus Drive, Ste 121
Bakersfield, CA 93308
Hanford, CA 93230
(559) 585-2550

8 Name of owner's project engineer:
Curtis Skaggs
(661) 393-4796

Name, address, & telephone number of owner:

CALIFORNIA AMERICAN WATER COMPANY

511 FOREST LODGE RD, SUITE 100

PACIFIC GROVE, CA 93950

916-568-4271

2 Name of project:

CYPRESS WELL

3 Location of project:

MONTEREY AND CARMEL VALLEY RD

4 Brief description of work involved:

Drilled Water Wells - 102' of casing, 53' of gravel fill pipe

107' of sounding pipe, 10 hrs of well development by air lift swabbing

5 Contract amount:

\$494,609.81

6 Date of completion of contract:

9/09-10/09

7 Name, address, & phone number of architect or engineer:

TOM BRUNET - CAL AMERICAN WATER

4701 W BELOIT DR

SACRAMENTO, CA 95838

916-568-4271

8 Name of owner's project engineer:

TOM BRUNET - CAL AMERICAN WATER

916-568-4271

Name, address, & telephone number of owner:

CITY OF LEMOORE

711 CINNAMON DRIVE

LEMOORE, CA 93245

559-924-6735

2 Name of project:

PRODUCTION WELL #13

3 Location of project:

WEST HILLS COLLEGE/BUSH STREET

4 Brief description of work involved:

Drilled Water Wells - (1) pilot hole to '1400, 880' of gravel fill pipe
540' of sounding pipe, 80 hrs of well development

5 Contract amount:

\$815,164.00

6 Date of completion of contract:

3/10-5/10

7 Name, address, & phone number of architect or engineer:

DAVID JACOBS - QUAD KNOFF

5110 W. CYPRESS AVE

VISALIA, CA 93277

(559) 733-0440

8 Name of owner's project engineer:

DAVE WLASCHIN

(559) 924-6735

1. Name, address, and telephone number of owner:

Lehi City Corporation

153 North 100 East

Lehi, UT 84043

2. Name of project:

Airport & Pilgrims Well Construction

3. Location of project:

I-15 & Frontage Road and North of Pilgrims Loop Road

4. Brief description of work involved:

Drill two Wells 1505' depth x 16" dia., 1470' depth x 20" dia.

Casing, gravel pack, cement, swab & airlift and test pump wells

5. Contract amount:

\$ 1,111,268.50

6. Date of completion of contract:

Started May 2005 – Finished October 2005

7. Name, address, and phone number of architect or engineer:

Civil Science Engineers

3160 W. Clubhouse Drive

Lehi, UT 84043

8. Name of owner's project engineer:

Mike Echevarria

(801) 768-7200

Name, address, & telephone number of owner:

CITY OF DAVIS

1717 FIFTH STREET

DAVIS, CA 95616

(916) 757-5686

2 Name of project:

PRODUCTION WELL #34

3 Location of project:

COMMUNITY GARDENS & FIFTH STREET

4 Brief description of work involved:

Drilled Water Wells - (1) pilot hole to '1593, 633' of gravel fill pipe
833' of sounding pipe, 23.5 hrs of well development

5 Contract amount:

\$815,164.00

6 Date of completion of contract:

10/09-1/10

7 Name, address, & phone number of architect or engineer:

CITY OF DAVIS

1717 FIFTH STREET

DAVIS, CA 95616

(916) 757-5686

8 Name of owner's project engineer:

Matt Deussenberry

(916) 757-5686

Name, address, & telephone number of owner:

Jordanelle Special Services District

10420 North Jordanelle Blvd

Heber City, UT 84032

(435) 333-0475

2

Name of project:

Victory Ranch Well #1

Wasatch County, Utah

3

Location of project:

N 1900' E 2100' from SW Corner S32, T2S, R6E, SLB&M

Brief description of work involved:

Artesian Flow. Drill 1200' borehole, geophysical logs, and test pump

Contract amount:

\$665,762.47

Date of completion of contract:

Started December 2006 - Finished January 2007

Name, address, & phone number of architect or engineer:

Loughlin Water Associates

3100 W. Pine Rd, Suite 1100

Park City, UT 84098

435-649-4005

Name of owner's project engineer:

George Condrat

435-649-4005

Name, address, & telephone number of owner:

Brigham City
20 North Main St
Brigham City, UT
(435) 230-0423

2

Name of project:

Flat Bottom Canyon Well

3

Location of project:

6 East St and 90

4

Brief description of work involved:

Artesian Flow. Drill 900' borehole, geophysical logs, and test pump

Contract amount:

\$596,050.00

Date of completion of contract:

Started September 2009 - Finished February 2010

Name, address, & phone number of architect or engineer:

Hansen, Allen Luce
6771 South 900 East
Midvale, UT 84037
801-664-4377

Name of owner's project engineer:

Bill Bigelow
801-664-4377

Name, address, & telephone number of owner:

City of Mountain View

500 Castro St

Mountain View, CA 95039

(650) 903-6311

2

Name of project:

New Well No. 22

Project#00-30

3

Location of project:

W. Evelyn Ave & Franklin St, Mountain View, CA

Brief description of work involved:

Artesian Flow. Drill 575' borehole and test pump

Contract amount:

\$262,629.00

Date of completion of contract:

Started August 2002 - Finished October 2002

Name, address, & phone number of architect or engineer:

Luhdorff & Scalamanini

500 First St

Woodland, CA 95695

530-661-0109

Name of owner's project engineer:

Carl Wuhlf

530-661-0109

Name, address, & telephone number of owner:

Jordanelle Special Services District

10420 North Jordanelle Blvd

Heber City, UT 84032

(435) 333-0475

2 Name of project:

Victory Ranch Well #1

Wasatch County, Utah

3 Location of project:

N 1900' E 2100' from SW Corner S32, T2S, R6E, SLB&M

4 Brief description of work involved:

Artesian Flow. Drill 1200' borehole, geophysical logs, and test pump

5 Contract amount:

\$665,762.47

6 Date of completion of contract:

Started December 2006 - Finished January 2007

7 Name, address, & phone number of architect or engineer:

Loughlin Water Associates

3100 W. Pine Rd, Suite 1100

Park City, UT 84098

435-649-4005

8 Name of owner's project engineer:

George Condrat

435-649-4005

Name, address, & telephone number of owner:

Brigham City

20 North Main St

Brigham City, UT

(435) 230-0423

2

Name of project:

Flat Bottom Canyon Well

3

Location of project:

6 East St and 90

4

Brief description of work involved:

Artesian Flow. Drill 900' borehole, geophysical logs, and test pump

5

Contract amount:

\$596,050.00

6

Date of completion of contract:

Started September 2009 - Finished February 2010

7

Name, address, & phone number of architect or engineer:

Hansen, Allen Luce

6771 South 900 East

Midvale, UT 84037

801-664-4377

8

Name of owner's project engineer:

Bill Bigelow

801-664-4377

Name, address, & telephone number of owner:

Taylorsville--Bennion Improvement District

1800 West 4700 South

Taylorsville, UT 84123

(801) 968-9081

2 Name of project:

Taylorsville Drill Well

Project #08016C.02

3 Location of project:

Meadowbrook Production Well

4 Brief description of work involved:

Drilled pilot hole to 1,050', reamed to 900', 7 zone tests, casing and screen,
gravel pack, well development, pump testing and well video

5 Contract amount:

\$762,435.00

6 Date of completion of contract:

Started April 2009 - Finished June 2009

7 Name, address, & phone number of architect or engineer:

Caldwell Richards Sorenson

2060 East 2100 South

Salt Lake City, UT 89109

(801) 359-5565

8 Name of owner's project engineer:

Mark Chandler

(801) 359-5565

1. Name, address, and telephone number of owner:

Lehi City Corporation

153 North 100 East

Lehi, UT 84043

2. Name of project:

Airport & Pilgrims Well Construction

3. Location of project:

I-15 & Frontage Road and North of Pilgrims Loop Road

4. Brief description of work involved:

Drill two Wells 1505' depth x 16" dia., 1470' depth x 20" dia.

Casing, gravel pack, cement, swab & airlift and test pump wells

5. Contract amount:

\$ 1,111,268.50

6. Date of completion of contract:

Started May 2005 - Finished October 2005

7. Name, address, and phone number of architect or engineer:

Civil Science Engineers

3160 W. Clubhouse Drive

Lehi, UT 84043

8. Name of owner's project engineer:

Mike Echevarria

(801) 768-7200

1 Name, address, & telephone number of owner:

City of Hanford

Department of Public Works

900 South 10th Avenue

Hanford, CA 93230

2 Name of project:

Public Water Supply Well # 46

Lakewood Basin

Project # 620 808659

3 Location of project:

Lakewood Basin

Hanford, CA

4 Brief description of work involved:

Drilled 1,700' pilot hole, 6 zone tests, reamed borehole to 32 or 28", casing,
gravel pack, annular seal, pump and surge well development, and test pump.

5 Contract amount:

\$890,570.00

6 Date of completion of contract:

Started February 2008 - Finished April 2008

7 Name, address, & phone number of architect or engineer:

City of Hanford

Department of Public Works

900 South 10th Avenue

Hanford, CA 93230

(559) 585-2550

8 Name of owner's project engineer:

Johnathan L. Doyel, P.E.

(559) 585-2550

Name, address, & telephone number of owner:

Olivehurst PUD

1970 9th St

Olivehurst, CA 95961

(916) 464-3291

2 Name of project:

Drill well #34

3 Location of project:

Hwy 70 and Arboga Rd

4 Brief description of work involved:

Drilled Water Wells - (1) pilot hole to 490', 192' of gravel feed pipe
212' of sounding pipe, 40 hrs of arilift swabbing, 80 hrs of well development

5 Contract amount:

\$351,816.00

6 Date of completion of contract:

1/09 - 12/09

7 Name, address, & phone number of architect or engineer:

Olivehurst PUD

1970 9th St

Olivehurst, CA 95961

(916) 464-3291

8 Name of owner's project engineer:

John Tollitson

(916) 464-3291

1. Name, address, and telephone number of owner:

City of Phoenix

200 West Washington Street, Eighth Floor

Phoenix, AZ 85003-1611

(602) 534-5813

2. Name of project:

City of Phoenix Well No. 299

Project No. WS85010041 - Contract No. 120816

3. Location of project:

NE 1/4 of the SE 1/4 of the SW 1/4 Section 36 Township 5 North

Range 3 East - 26829 N. Cave Creek Road - Station 7A-B1

4. Brief description of work involved:

Drilled Pilot Hole to 1,868' depth, Reamed to 1,433' depth

18" dia. casing to 1,420' depth, gravel pack, pump testing and

video

5. Contract amount:

\$ 1,132,430.00

6. Date of completion of contract:

Started July 2007 - Completed October 2007

7. Name, address, and phone number of architect or engineer:

Clear Creek Associates

6155 E. Indian School Road., Suite 200

Scottsdale, AZ 85251

Dave Wrzosek - (480) 659-7131/(602) 809-0216 cell

8. Name of owner's project engineer:

Gary Gin

(602) 495-5654

gary.gin@phoenix.gov

1. Name, address, and telephone number of owner:

City of Mesa
200 South Center Street, Building 2
Mesa, AZ 85211-1466
(480) 664-2253

2. Name of project:

Desert Well No. 21 - Drilling Phase
Project No. 05-065-001

3. Location of project:

11010 E. Elliott Road, Mesa, AZ

4. Brief description of work involved:

Drill Well to 1,160' depth x 20' dia, gravel pack, air-lifting &
swabbing, cement, and test pumping

5. Contract amount:

\$ 871,887.57

6. Date of completion of contract:

Started July 2007 - Finished October 2007

7. Name, address, and phone number of architect or engineer:

City of Mesa - Engineering
200 South Center Street, Building 2
Mesa, AZ 85211-1466

8. Name of owner's project engineer:

C. Gary Rains II
(480) 644-2253

1. Name, address, and telephone number of owner:

Arizona Water Company

3805 N. Black Canyon Highway

Phoenix, AZ 85015

(602) 240-6860

2. Name of project:

Apache Junction - Oasis Well # 19

3. Location of project:

SW ¼ of the NE ¼ of the NE ¼ Section 26 Township 1 North

Range 7 East

4. Brief description of work involved:

Drilled Pilot Hole to 1,340' depth x 18" dia. casing,

Airlift & swab, cement, gravel pack, pump & development

Testing, video

5. Contract amount:

\$ 688,346.60

6. Date of completion of contract:

Started January 2007 - Completed March 2007

7. Name, address, and phone number of architect or engineer:

Arizona Water Company

3805 North Black Canyon Highway

Phoenix, AZ 85015

(602) 240-6860

8. Name of owner's project engineer:

Mike Loggins

(602) 240-6860

mloggins@azwater.com

1. Name, address, and telephone number of owner:

Arizona Public Service Company

Subsidiary of Pinnacle West Capital Corporation

P.O. Box 53940

Phoenix, AZ 85072-3940 - (623) 393-5261

2. Name of project:

Palo Verde Nuclear Generating Station - Agreement 500311351

Water Reclamation Facility - Well "C"

3. Location of project:

5801 South Winterberg Road, Tonopah, AZ

4. Brief description of work involved:

Drill Well "C" to 1,310 depth, 0 - 480' x 20" diameter casing,

480' - 1,310' x 16" diameter casing

5. Contract amount:

\$ 722,081.00

6. Date of completion of contract:

December 2007

7. Name, address, and phone number of architect or engineer:

Clear Creek Associates

Wayne Feller - (480) 659-7131

8. Name of owner's project engineer:

Blythe Lippincott

(623) 393-5261

1 Name, address, & telephone number of owner:

City of Avondale

1211 S. Fourth Street

Avondale, AZ 85323

2 Name of project:

Well No. 24

P.O. No. 52202

3 Location of project:

99th & McDowell

Avondale, AZ

4 Brief description of work involved:

Drilled pilot hole to 810', 6 zone tests, reamed to 650', casing, gravel pack,
cement, swab develop, & test pump

5 Contract amount:

\$384,921.00

6 Date of completion of contract:

Started March 2006 - Finished May 2006

7 Name, address, & phone number of architect or engineer:

1405 W. Auto Drive

Tempe, AZ 85284-1016

(480) 940-2320

8 Name of owner's project engineer:

Greg Nichols

(480) 940-2320

1. Name, address, and telephone number of owner:

City of Rio Rancho

3900 Southern Blvd

Rio Rancho, NM 87124

2. Name of project:

Well # 10 Drilling – Job No. 03-UT-043

3. Location of project:

3600 9th Avenue, Rio Rancho, NM 87124

4. Brief description of work involved:

Drill & Ream borehole to 2,514' depth x 28" dia x 20" dia &

18 5/8" dia casing, develop & constant rate testing

5. Contract amount:

\$1,240,000.00

6. Date of completion of contract:

Started April 2003 – Finished September 2003

7. Name, address, and phone number of architect or engineer:

Glorieta Geoscience, Inc.

P.O. Box 5727

Santa Fe, NM 87502

8. Name of owner's project engineer:

Jim Riesterer

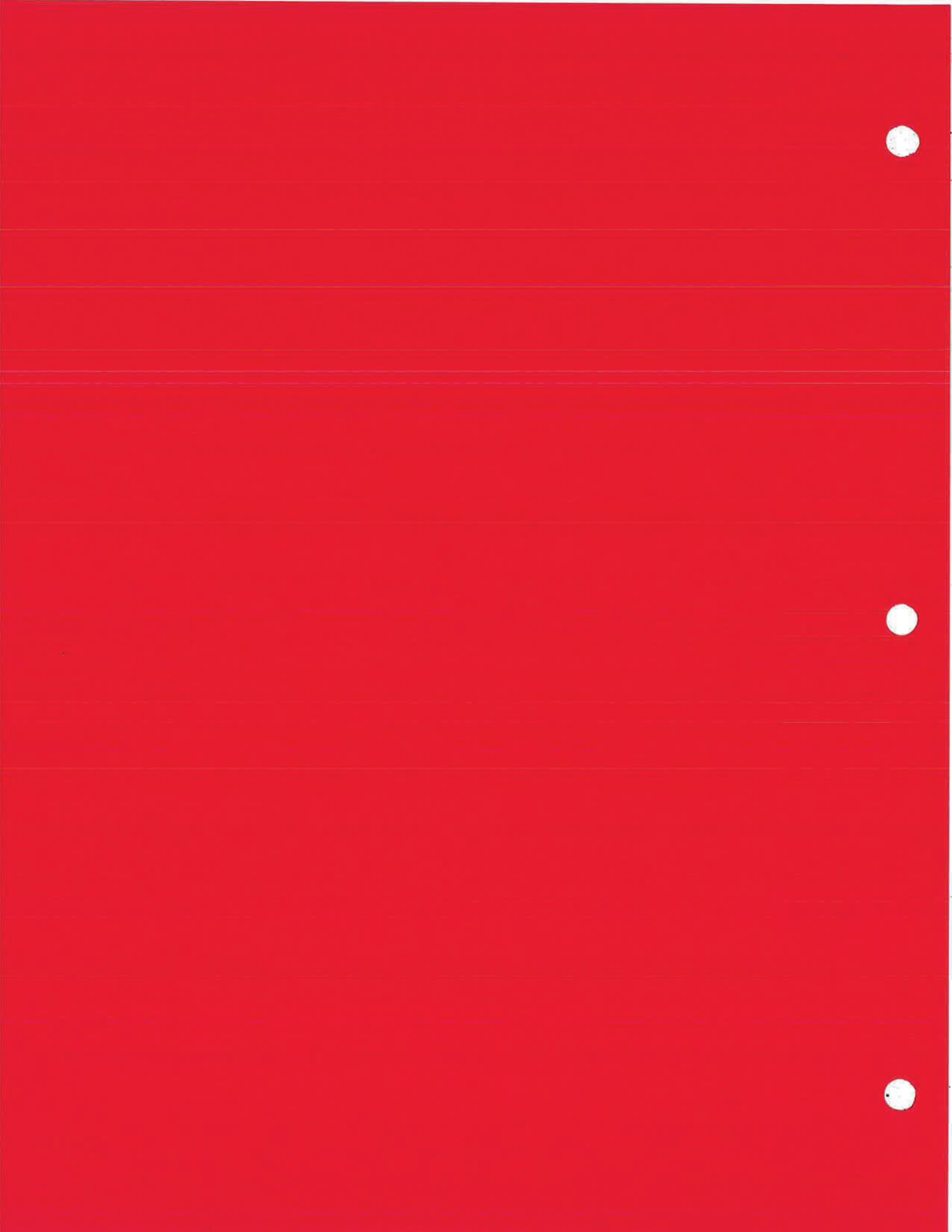
(505) 983-5446

B

PLAN FOR ACCEPTANCE TESTING

Zim Industries, Inc. will coordinate project acceptance testing with California American Water for both wells 5 and 6 as they are completed and the permanent pumps have been installed. Zim Industries, Inc. personnel will provide start-up test of each pump in wells 5 and 6 in the presence of California American Water's designated representative. Zim Industries, Inc. will provide O&M manuals, as built drawings, and specifications for the wells and pumps for wells 5 and 6. Finally, Zim Industries, Inc. will provide a one-year warranty period on the wells and pumps for wells 5 and 6. Should any warranty issues arise during this warranty period, Zim Industries, Inc. will coordinate with California American Water to correct any deficiencies.

SECRET
4



A

SECTION 4.0: BUSINESS AND PRICE PROPOSAL

Zim Industries, Inc. understands that this proposal may not be awarded immediately and that the execution of the Contract may be delayed due to unforeseen circumstances. Zim Industries, Inc. commits to keeping these proposal prices valid for an extended period of time should such a delay occur. The key aspects of Zim Industries, Inc.'s business is water well drilling and pump sales and installations. Our current backlog of work is currently and consistently ranging between \$10,000,000 and \$20,000,000. Zim Industries, Inc. has the capacity to commence 13 new drilling projects every 30 to 45 days. Considering our capacity and current and future expected backlog of contracted work, Zim Industries, Inc. commits to California American Water that Zim Industries, Inc. will be able to execute the Contract agreement and commence this project anytime that California American Water wishes during the next 1 to 10 months. Zim Industries, Inc. has the operational capacity, financial capacity, bonding capacity to complete the Contract Work required in the Fitch Park ASR Wells 5 and 6 well drilling project totaling \$3,696,630 as proposed in item B of this section of the proposal.

B

CALIFORNIA AMERICAN WATER - MPWSP
Fitch Park ASR-5 and ASR-6

BID SHEET for FITCH PARK ASR-5 AND ASR-6 CONSTRUCTION

BID ADDENDUM NO. 3

Item	Title	Unit	Estimated Quantity (per well)	Unit Price	Subtotal (per well)	Total (both wells)
1	Mobilization	Lump Sum	Lump Sum	\$ 113,400	\$ 113,400	\$ 226,800
2	Noise Control / Sound Barrier	Linear Feet	500	\$ 80	\$ 40,000	\$ 80,000
3	36-Inch Diameter Carbon Steel Conductor Casing	Linear Feet	55	\$ 540	\$ 29,700	\$ 59,400
4	Pilot Bore Drilling	Linear Feet	1065	\$ 90	\$ 95,850	\$ 191,700
5	Geophysical Logging	Lump Sum	Lump Sum	\$ 2,800	\$ 2,800	\$ 5,600
6	Pilot Bore Reaming	Linear Feet	1065	\$ 75	\$ 79,875	\$ 159,750
7	Caliper Survey	Lump Sum	Lump Sum	\$ 2,200	\$ 2,200	\$ 4,400
8.1	22-inch Diameter Stainless Steel Blank Casing	Linear Feet	760	\$ 833	\$ 633,080	\$ 1,266,160
8.2	20-inch Diameter Stainless Steel Wire Wrapped Screen	Linear Feet	300	\$ 336	\$ 100,800	\$ 201,600
8.3	20-inch Diameter Stainless Steel Blank Casing	Linear Feet	20	\$ 579	\$ 11,580	\$ 23,160
8.4	20-inch Diameter Stainless Steel Cellar with Bullnose	Lump Sum	20	\$ 643	\$ 12,860	\$ 25,720
8.5	3-inch Diameter Stainless Steel Gravel Tremie Pipe	Linear Feet	750	\$ 31	\$ 23,250	\$ 46,500
8.6	3-inch Diameter Stainless Steel Sounding Pipe	Linear Feet	760	\$ 46	\$ 34,960	\$ 69,920
8.7	3-inch Diameter Stainless Steel Casing Vent Pipe	Lump Sum	Lump Sum	\$ 1,700	\$ 1,700	\$ 3,400
9	Gravel Pack	Linear Feet	390	\$ 73	\$ 28,470	\$ 56,940
10	Cement Grout	Linear Feet	730	\$ 50	\$ 36,500	\$ 73,000
11.1	Mechanical Development	Hours	85	\$ 450	\$ 38,250	\$ 76,500
11.2	Pumping Development	Hours	100	\$ 340	\$ 34,000	\$ 68,000
11.3	Additional Mechanical Development	Hours	XX Hours	\$ 450	XXXX	XXXX
11.4	Additional Pumping Development	Hours	XX Hours	\$ 340	XXXX	XXXX

**CALIFORNIA AMERICAN WATER - MPWSP
Fitch Park ASR-5 and ASR-6**

Item	Title	Unit	Estimated Quantity (per well)	Unit Price	Subtotal (per well)	Total (both wells)
12	Production Testing	Hours	16	\$ 340	\$ 5,440	\$ 10,880
13	Disinfection of Well	Lump Sum	Lump Sum	\$ 1,500	\$ 1,500	\$ 3,000
14	Wellhead Completion and Installation of Pump/Motor and FCV Assembly	Lump Sum	Lump Sum	\$ 19,500	\$ 19,500	\$ 39,000
14.A	Well Pump/Motor and FCV Assembly	Allowance	Allowance	\$300,000	\$300,000	\$600,000
14.B	Percent Markup Over Invoiced Cost for Well Pump/Motor and FCV Assembly	Percent	Percent	% 35	% 35	% 35
14.C	Markup Amount (amount entered in 14.A times percent entered in 14.B)	Lump Sum	Lump Sum	\$ 105,000	\$ 105,000	\$ 210,000
15	Downhole Velocity Surveys	Lump Sum	Lump Sum	\$ 7,600	\$ 7,600	\$ 15,200
16	Acceptance Video Surveys	Lump Sum	Lump Sum	\$ 1,100	\$ 1,100	\$ 2,200
17	Plumbness and Alignment	Lump Sum	Lump Sum	\$ 3,000	\$ 3,000	\$ 6,000
18	Standby Time	Hours	XX Hours	\$ 300	XXXX	XXXX
19	Site Cleanup	Lump Sum	Lump Sum	\$ 4,000	\$ 4,000	\$ 8,000
20	Fluid and Cuttings Containment and Disposal	Lump Sum	Lump Sum	\$ 39,000	\$ 39,000	\$ 78,000
21	Temporary Discharge Pipeline	Lump Sum	Lump Sum	\$ 16,200	XXXX	\$ 16,200
22	Traffic Control Plan	Lump Sum	Lump Sum	\$ 10,000	\$ 10,000	\$ 20,000
23	Connect pipe extension & valves to Temporary Water Supply, and construction water consumption	Allowance	Allowance	\$ 10,000	\$10,000	\$20,000
24	Temporary 7' height Perimeter Site Security, Chain Link Fencing & Double Leaf Gates, lockable	Lump Sum	Lump Sum	\$ 4,800	\$ 4,800	\$ 9,600
25	Community Outreach Plan & Attend Meetings	Allowance	Allowance	\$ 3,000	\$3000	\$6000
26	Prepare & implement BMP's and Storm Water Pollution Prevention Plan (SWPPP)	Lump Sum	Lump Sum	\$ 7,000	\$ 7,000	\$ 14,000
Total Amount Bid:					\$ 1,840,215	\$ 3,680,430

CALIFORNIA AMERICAN WATER - MPWSP
Fitch Park ASR-5 and ASR-6

Item	Title	Unit	Estimated Quantity (per well)	Unit Price	Subtotal (per well)	Total (both wells)
Total In Words: <i>three million six hundred and ninety-six thousand</i>						
<i>six hundred and thirty dollars</i>						

C

Monterey Peninsula Water Supply Project
Request for Proposals for the Construction of Fitch Park ASR Wells 5 and 6

PROPOSAL FORM 6

ACCEPTANCE OF THE CONTRACT

Proposer agrees to all of the provisions of the draft Contract except as expressly provided in the track changes or redline version of the draft Contract that is attached to this Proposal Form.

Zim Industries, Inc.
Name of Proposer

Curt B. Zimmerer
Name of Designated Signatory


Signature

President
Title

~~A~~
D

corrected
~~F~~ PM

PROPOSAL FORM 7

PRICE ESCALATOR INDICES

PRICE INCREASE USING CONSUMER PRICE INDEX:

The unit price includes the costs of bonds, insurance, permits, sales tax, overhead, profit and all other costs.

Consumer Price Index (CPI): *Contract prices for Services will remain firm through (Enter Month, Day Year).*

Contractor must request price adjustments, in writing, 30 days prior to the adjustment date of requested increase. If a contractor fails to request a CPI price adjustment 30 days prior to the adjustment date, the adjustment will be effective 30 days after CAWC receives and approves their written request.

Price adjustments will be made in accordance with the percentage change in the U.S. Department of Labor Consumer Price Index (CPI-U) for Urban Wage Earners and Clerical Workers (Current Series), West Region All Items.

The price adjustment rate will be determined by comparing the percentage difference between the CPI in effect for the base year six-month average (January through June OR July through December); and each (January through June OR July through December six-month average) thereafter. The percentage difference between those two CPI issues will be the price adjustment rate. No retroactive contract price adjustments will be allowed.

<https://www.bls.gov/data/>

The following example indicates how to adjust contract pricing when using the CPI as a contract price adjustment clause: *(Remember, all price adjustments should be rounded to equal the pricing structure of the contract in question. For example, if the unit price is \$100, make sure that you round the CPI adjusted price to the same number of decimal places to ensure accuracy).*

EXAMPLE

First Contract Adjustment date: March 1, 2018

Price to be adjusted: \$250

Adjustment period: Annually

CPI Index in use: CPI-U All Urban Wage Earners and Clerical Workers (current Series), <https://www.bls.gov/data/> select "Top Picks" then select *West Region All Items*.

First Adjustment Period:

Current index: 2018	250.416
Base index: 2017	242.384

Monterey Peninsula Water Supply Project
Request for Proposals for the Construction of Fitch Park ASR Wells 5 and 6

Subtract the Base index from the Current index	250.416 - 242.384	=	8.032
Divide the result by the Base index	8.032 / 242.384	=	.0331
Multiply the result by 100 to obtain percentage	.0331 x 100	=	3.31%
Multiply the price to be adjusted by the % increase	\$250 x .0331	=	\$8.28
Add the price to be adjusted to the adjustment amount	\$250 + \$8.28	=	\$258.28

CPI adjusted price for contract term March 1, 2018	\$258.28
---	-----------------

It is important to note that with each price adjustment, the original CPI **Base** index date range must be compared to the most current CPI index date range. The adjustment will always be made to the original contract price. In other words, CAWC will not adjust a price that has been previously adjusted. Adjustments will only be made to the original agreed upon hourly price, e.g. Senior Engineer charges are \$250/Hour as set in the original agreement.

E

**Monterey Peninsula Water Supply Project
Request for Proposals for the Construction of Fitch Park ASR Wells 5 and 6**

PROPOSAL FORM 8

DIVERSE BUSINESS ENTERPRISES REQUIREMENT STATEMENT

Owner utilizes the established guidelines from the California Public Utilities Commission (“CPUC”) to qualify diverse suppliers and requires certification as a Diverse Business Enterprise (“DBE”) by the Supplier Clearinghouse and/or the California Department of General Services. To be eligible for award of a contract from this solicitation, the bidder/proposer must execute and submit, as part of his or her bid/proposal, this statement. DBEs are divided into four classifications, as follows: Minority Business Enterprises (“MBE”), Women-Owned Business Enterprises (“WBE”), Disabled Veteran Business Enterprises (“DVBE”), and Lesbian, Gay, Bi-Sexual and Transgender Business Enterprises (“LGBTBE”). This statement shall be deemed a material factor in the Owner’s evaluation of the bid/proposal. Failure to complete and submit this statement, or the inclusion of a false statement, shall render the bid/proposal non-responsive.

The CPUC has set a goal for Owner to achieve at least 21.5% of total contract spend on DBEs, divided into the four classifications as follows: MBE – 15%, WBE – 5%, DVBE – 1.5%, and LGBTBE – goal to be established in 2020.

Owner has established certain minimum requirements, as set forth below, for the percentage of the total Contract Price that must be paid to DBEs (the “DBE Minimum”). The DBE Minimum for a contract will depend upon the total Contract Price for that contract, as set forth below. For example, for a contract with a Contract Price of \$1,200,000, the DBE Minimum is 25% and, therefore, at least \$300,000 must be paid to DBEs either as the primary contractor or as one or more subcontractors. Further, for a contract with a Contract Price of \$4,000,000, the DBE Minimum is 30% and, therefore, at least \$1,200,000 must be paid to DBEs either as the primary contractor or as one or more subcontractors.

Total Contract Price	DBE Minimum
\$100,000 - \$500,000	15%
\$500,001 - \$1,000,000	20%
\$1,000,001 - \$3,000,000	25%
\$3,000,001 and higher	30%

Notwithstanding the DBE Minimum set forth above, a bidder/proposer may propose, and is strongly encouraged to propose, a higher percentage of the Contract Price to be paid to DBEs. As part of its submission, the must respond to the questions below and identify the percentage of the Contract Price that will be paid to DBEs (such percentage must be NO LOWER THAN the DBE Minimum set forth above). The percentage of the Contract Price that will be paid to DBEs (to the bidder/proposer as primary contractor or to subcontractors), as indicated on this form, will be a contractual requirement (the “DBE Requirement”) that must be met by the bidder/proposer in performing the Contract Services. Failure to meet the DBE Requirement will be considered a breach of the contract and may result in termination of the contract by the Owner.

Monterey Peninsula Water Supply Project
Request for Proposals for the Construction of Fitch Park ASR Wells 5 and 6

Complete the items below:

1. Is bidder/proposer certified as a Diverse Business Enterprise with the CPUC Supplier Clearinghouse and/or the California Department of General Services?

Respond YES or NO: No

If YES, provide a copy of your certification with your bid/proposal and identify which classification your firm is certified under (i.e., MBE, WBE, DVBE, or LGBTBE): Not Applicable

2. What is the DBE Requirement (the percentage of the Contract Price that will be paid to DBEs) that bidder/proposer will agree to in the contract for the Contract Services?

30.68 % of Contract Price (such percentage must be equal to or greater than the DBE Minimum as set forth above)

Bidder/Proposer Name: Zim Industries, Inc.

Printed Name of Authorized Person: Curt B. Zimmerman

Signature of Authorized Person: Curt B. Zimmerman

Title of Authorized Person: President



**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form**

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractor's² and the estimated dollar amount of each subcontract. A Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Construction of Fitch Park ASR Wells 5 and 6

Prime Contractor Name <i>Zim Industries, Inc.</i>		Project Name <i>Monterey Peninsula Water Supply Project</i>	
Bid / Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact <i>Curt Zimmerer</i>	
Address <i>4532 E. Jefferson Ave Fresno, CA 93725</i>			
Telephone No. <i>(559) 834-1551</i>		Email Address <i>curt@zimindustries.com</i>	
Issuing/Funding Entity			

I have identified potential DBE certified subcontractors. YES NO
If yes, please complete the table below. If no, please explain:

Subcontractor Name/ Company Name	Company Address / Phone / Email	Estimated Dollar Amount	Currently DBE Certified?
<i>Mill Man Steel Inc.</i>	<i>1441 Wazer St, Suite 104, Denver, CO, 80202 (303) 220-8545 jamesgoss@millmansteel.com</i>	<i>\$1,060,448⁵⁵</i>	<i>Yes</i>
<i>Sam's Equipment & Supplies</i>	<i>P.O. Box 7797, Fresno, CA 93727 (559) 252-0354 gabe.samsequipment@gmail.com</i>	<i>\$60,334⁵⁰</i>	<i>Yes</i>
<i>5C-Drilling & Transportation Services</i>	<i>9530 Hageman Rd, Suite B368 Bakersfield, CA 93312 (661) 401-0226 cami@5ch-inc.com</i>	<i>\$13,522⁰⁰</i>	<i>Yes</i>

--Continue on back if needed--

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.2015 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an award of financial assistance.



**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form**

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractor's² and the estimated dollar amount of each subcontract. A Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Construction of Fitch Park ASR Wells 5 and 6

Prime Contractor Name <i>Zim Industries, Inc.</i>		Project Name <i>Monterey Peninsula Water Supply Project</i>	
Bid / Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact <i>Curt Zimmerman</i>	
Address <i>4532 E. Jefferson Ave Fresno, CA 93725</i>			
Telephone No. <i>(559) 834-1551</i>		Email Address <i>curt@zimindustries.com</i>	
Issuing/Funding Entity			

I have identified potential DBE certified subcontractors. YES NO
 If yes, please complete the table below. If no, please explain:


Subcontractor Name/ Company Name	Company Address / Phone / Email	Estimated Dollar Amount	Currently DBE Certified?
<i>Pacific Surveys, LLC</i>	<i>4456 Via Saint Ambrose Claremont, CA 91711 (800) 919-7535 ship@pacificsurveys.com</i>	<i>\$18,297.30</i>	<i>No</i>

--Continue on back if needed--
Continued

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.2015 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.
² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an award of financial assistance.

EXHIBIT A

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
	Curt B. Zimmerer
Title	Date
President	11-29-2018

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Do not send the completed form to this address.

EXHIBIT A



Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form

This form is intended to capture the DBE¹ subcontractor's² description of work to be performed and the price of the work submitted to the prime contractor. A Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractor's bid or proposal package.

Subcontractor Name MILL MANSTEEL INC		Project Name MOURREY WATER SUPPLY PROJECT	
Bld / Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact JAMES GOSZ	
Address 1441 WARE ST, SUITE 104, DENVER CO. 80202			
Telephone No. 303-220-8645		Email Address jamesgosz@millmansteel.com	
Prime Contractor Name ZIM INDUSTRIES, Inc.		Issuing/Funding Entity	

Contract Item Number	Description of Work Submitted from the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
	STAINLESS STEEL PIPE CARBON PIPE	\$1,060,448⁵⁵ USD
DBE Certified By: <u>DOT</u> <u>SBA</u> Other: <u>CA PUBLIC UTILITIES</u>		Meets/exceeds EPA certification standards? <input checked="" type="radio"/> YES NO <input type="radio"/> Unknown


¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 83.204-83.2015 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 83.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an award of financial assistance.

EXHIBIT A

I certify under penalty of perjury that the foregoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 23 Section 33.802 (c).

Prime Contract Signature	Print Name
	Curt B. Zimmerer
President - Zim Industries, Inc.	11-29-2018

Subcontractor Signature	Print Name
	JAMES GOSS
SALES	11/29/18

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FORM 4500-9 (DBE Subcontractor Performance Form)

Revised 12/2016

EXHIBIT A



**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form**

This form is intended to capture the DBE¹ subcontractor's² description of work to be performed and the price of the work submitted to the prime contractor. A Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractor's bid or proposal package.

Subcontractor Name Sam's Equipment & Supplies		Project Name Monterey Peninsula Water Supply Project	
Bid / Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address P.O. Box 7797 Fresno, CA 93747-7797			
Telephone No. 559-252-0354		Email Address samsequipment@comcast.net	
Prime Contractor Name Zim Industries, Inc.		Issuing/Funding Entity	

Contract Item Number	Description of Work Submitted from the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
	3" stainless steel pipe	\$60,334.50
DBE Certified By: <input checked="" type="checkbox"/> DOT <input checked="" type="checkbox"/> SBA Other: <u>DGS</u>		Meets/exceeds EPA certification standards? <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> Unknown

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²Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an award of financial assistance.

EXHIBIT A

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

<i>Curt Zimmerman</i>	Curt B. Zimmerman
President - Zim Industries, Inc.	11-29-2018

<i>Sam Callison</i>	Samuel Callison
Owner	11/29/2018

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Do not send the completed form to this address.

EXHIBIT A



**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form**

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Subcontractor Name 5C Holdings Inc		Project Name Monterey Peninsula Water Supply	
Bid / Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact Cami Hogg	
Address 9530 Hageman Rd B308 Bakersfield CA 93312			
Telephone No. 661 438 8392		Email Address Cami@5ch-inc.com	
Prime Contractor Name Em Industries		Issuing/Funding Entity	

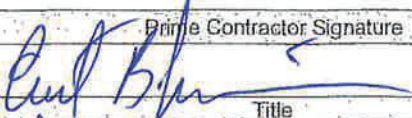
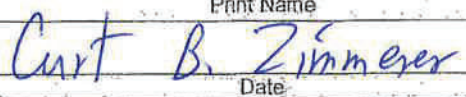
Contract Item Number	Description of Work Submitted from the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
	drilling & setting of conductors	\$13,522⁰⁰
DBE Certified By: <input checked="" type="checkbox"/> DOT <input checked="" type="checkbox"/> SBA Other: WBE		Meets/exceeds EPA certification standards? <input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> Unknown

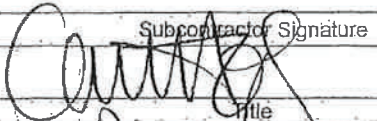
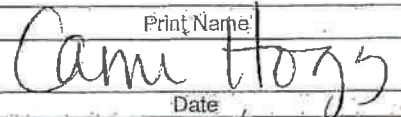
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Prime Contractor Signature	Print Name
Title	Date
President - Zim Industries, Inc.	11-29-2018

	
Subcontractor Signature	Print Name
Title	Date
President	11-14-18

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Do not send the completed form to this address.



**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form**

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Subcontractor Name PACIFIC SURVEYS, LLC		Project Name	
Bid / Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact MICHAEL RIDDER	
Address 9756 VIA SAINT AMBROSE CLAREMONT, CA 91711			
Telephone No. 800 919 7555		Email Address SHOP @ PACIFIC SURVEYS.COM	
Prime Contractor Name ZIM INDUSTRIES, INC		Issuing/Funding Entity	

Contract Item Number	Description of Work Submitted from the Prime Contractor Involving Construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor
	logging	18,297 ²⁰
DBE Certified By: <input type="checkbox"/> DOT <input type="checkbox"/> SBA <input type="checkbox"/> Other _____		Meets/exceeds EPA certification standards? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Unknown


N/A - PACIFIC SURVEYS IS NOT A DBE

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² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an award of financial assistance.

EXHIBIT A

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Prime Contractor Signature	Print Name
	Curt B. Zimmerer
Title	Date
President - Zim Industries, Inc	11-29-2018

Subcontractor Signature	Print Name
	JOSH WILLIAMS
Title	Date
OFFICE MANAGER	11/13/2018

The public reporting and record keeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Do not send the completed form to this address.

SECRET

5



A

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Fresno)

On November 13, 2018 before me, Judy M. Muston - Notary Public
Date Here Insert Name and Title of the Officer

personally appeared Curt B. Zimmerer
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature Judy M. Muston
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Bid Bond - Cal Am Water Co. Document Date: 11/12/2018
Number of Pages: 1 Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____
 Corporate Officer -- Title(s): _____
 Partner -- Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

Signer's Name: _____
 Corporate Officer -- Title(s): _____
 Partner -- Limited General
 Individual Attorney in Fact
 Trustee Guardian or Conservator
 Other: _____
Signer Is Representing: _____

CORPORATE RESOLUTION TO EXECUTE CONTRACTS

At a meeting of the corporation today, after considerable discussion, the following resolution was moved, seconded and unanimously adopted;

Resolved that any of the following persons, William P. Zimmerer, Robert J. Zimmerer, Curt B. Zimmerer, John C. Zimmerer, Kevin A. Newlen, Brian P. Zimmerer, or Boyd C. Zimmerer be, and they hereby are, authorized without further authorization of the board of directors to enter into and execute on behalf of the corporation any and all contracts to do corporate business for ZIM INDUSTRIES, INC. d.b.a. Bakersfield Well and Pump Company.

In witness whereof, I have hereunto set my hand as such Secretary, and affixed the corporate seal of said corporation this 31st day of October 2018.


Robert J. Zimmerer - Secretary

AUTHORIZED SIGNATURES


William P. Zimmerer



Robert J. Zimmerer


John C. Zimmerer


Curt B. Zimmerer


Kevin A. Newlen


Boyd C. Zimmerer


Brian P. Zimmerer

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

Civil Code § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

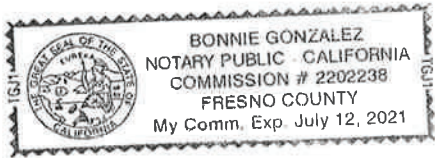
State of California)
) ss

County of Fresno)

On 11-12-2018, before me, Bonnie Gonzalez, Notary Public, personally appeared Lyn Genito, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



(Seal)

Signature: Bonnie Gonzalez
Bonnie Gonzalez, Notary Public



The Guarantee Company of North America USA
Southfield, Michigan

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS: That THE GUARANTEE COMPANY OF NORTH AMERICA USA, a corporation organized and existing under the laws of the State of Michigan, having its principal office in Southfield, Michigan, does hereby constitute and appoint

Steven P. Edwards, Cody Lyman, Lyn Genito, Bonnie Gonzalez
Alliant Insurance Services, Inc.

its true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise.

The execution of such instrument(s) in pursuance of these presents, shall be as binding upon THE GUARANTEE COMPANY OF NORTH AMERICA USA as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at the principal office.

The Power of Attorney is executed and may be certified so, and may be revoked, pursuant to and by authority of Article IX, Section 9.03 of the By-Laws adopted by the Board of Directors of THE GUARANTEE COMPANY OF NORTH AMERICA USA at a meeting held on the 31st day of December, 2003. The President, or any Vice President, acting with any Secretary or Assistant Secretary, shall have power and authority:

1. To appoint Attorney(s)-in-fact, and to authorize them to execute on behalf of the Company, and attach the Seal of the Company thereto, bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof; and
2. To revoke, at any time, any such Attorney-in-fact and revoke the authority given, except as provided below
3. In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and authority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.
4. In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner – Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

Further, this Power of Attorney is signed and sealed by facsimile pursuant to resolution of the Board of Directors of the Company adopted at a meeting duly called and held on the 6th day of December 2011, of which the following is a true excerpt:

SOLVED that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, contracts of indemnity and other writings obligatory in the nature thereof, and such signature and seal when so used shall have the same force and effect as though manually affixed.



IN WITNESS WHEREOF, THE GUARANTEE COMPANY OF NORTH AMERICA USA has caused this instrument to be signed and its corporate seal to be affixed by its authorized officer, this 2nd day of October, 2015.

THE GUARANTEE COMPANY OF NORTH AMERICA USA

STATE OF MICHIGAN
County of Oakland

Stephen C. Ruschak, President & Chief Operating Officer

Randall Musselman, Secretary

On this 2nd day of October, 2015 before me came the individuals who executed the preceding instrument, to me personally known, and being by me duly sworn, said that each is the herein described and authorized officer of The Guarantee Company of North America USA; that the seal affixed to said instrument is the Corporate Seal of said Company; that the Corporate Seal and each signature were duly affixed by order of the Board of Directors of said company.



Cynthia A. Takai
Notary Public, State of Michigan
County of Oakland
My Commission Expires February 27, 2024
Acting in Oakland County

IN WITNESS WHEREOF, I have hereunto set my hand at The Guarantee Company of North America USA offices the day and year above written.

I, Randall Musselman, Secretary of THE GUARANTEE COMPANY OF NORTH AMERICA USA, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney executed by THE GUARANTEE COMPANY OF NORTH AMERICA USA, which is still in full force and effect.



IN WITNESS WHEREOF, I have thereunto set my hand and attached the seal of said Company this

15th day of November 2018

Randall Musselman, Secretary

B

CONTRACTOR PRE-QUALIFICATION INFORMATION FORM

PRODUCTION WELL DRILLING AND CONSTRUCTION

Complete the following information and submit this form with the proposal. Print neatly or type.

1. Contractor's official business name: Zim Industries, Inc.
2. Mailing address: 4532 E Jefferson Ave; Fresno, CA 93725
3. Physical address (if different): Same as above
4. Office phone number: (559) 834-1551
5. Office fax number: (559) 834-5156
6. Firm Type Corporation Partnership Individual Joint Venture
7. Date company was organized: August 7, 1979
8. Name of current president or CEO: Curt B. Zimmerer
Numbers of years in that position: 17 years
9. Number of permanent office and support employees: 69
10. Number of permanent field employees: 104
11. How long has company been doing work similar to proposed Project: 25 years
12. Contractor's license information:
a. Classification: Mud Rotary, Reverse Rotary
b. CA Water Well Drillers License No.: 440537
c. Expiration Date: June 30, 2019
d. Other states in which licensed: Utah, Nevada, New Mexico, Arizona
e. Name on CA license: Robert J. Zimmerer
13. Contractor's surety (name, address, phone number, contact person):
The Guarantee Company of North America

9 Alliant Insurance Services, Inc.
9 E. River Park Place East, Suite 310; Fresno, CA 93720
(559) 374-3576 Lyn Genito, Assistant V.P. / Account Manager

14. Contractor's bank or financial institution (name, address, phone number, contact person):

Comerica Bank
Commercial Banking Group
5200 N. Palm Avenue, Suite 320; Fresno, CA 93704
(559) 244-3918 Kym Hudson, Senior V.P. / Relationship Manager

15. Contractor's insurance company (name, address, phone number, contact person):

Alliant Insurance Services, Inc.
Commercial / Corporate Risk
2355 Gold Meadow Way; Gold River, CA 95670
(916) 643-2729 Tracy Odan, AAI, CCSR, ACSR
Assistant V.P. / Account Executive

16. Has the contractor, or any of its parent companies or subsidiaries, ever had a bankruptcy petition

filed in its name, voluntarily or involuntarily? Yes / No

If yes, specify date, circumstances, resolution, and other details on separate page.

Not Applicable

17. Are there any unresolved claims or disputes on any work awarded to the contractor during the

past five (5) years? Yes / No

If yes, give owner's name, address, and details on separate page.

Not Applicable

18. Has the contractor ever failed to complete any work that it was awarded? Yes / No

If yes, give owner's name, address, and details on separate page.

Not Applicable

19. If awarded the contract, would you subcontract out any of the Work? Yes / No

Zim Industries, Inc. can test pump develop the well with its employees.

If yes, provide qualifications for the subcontractor(s) you propose to use.

Zim Industries, Inc. would hire an auger hole driller, logging company and possibly a test pump developer.

I hereby warrant and represent that the information presented in this proposal is true, accurate, and

complete.

Signed:

Curt B. Zimmerer

Printed Name:

Curt B. Zimmerer

Title:

President

C



August 22, 2018

Sandy Public Utilities
Sandy City
10000 Centennial Parkway, Suite 241
Sandy, UT 84070

Re: Zim Industries, Inc. – Prequalification Proposal for Flat Iron Well Drilling Project

To Whom It May Concern:

The Guarantee Company of North America USA is privileged to act as surety for Zim Industries, Inc. The Guarantee Company of North America USA enjoys the A.M. Best's Guide rating of AVIII and is licensed to transact surety business in the State of California. The Guarantee Company of North America USA is currently Treasury listed and their NAIC number is 36650.

The Guarantee Company of North America USA has established a surety program for Zim Industries, Inc. of \$10,000,000 million single contract, subject to a \$30,000,000 million aggregate. Currently, Zim Industries, Inc. has a current unused bonding capacity in excess of \$24,000,000 million.

As always, The Guarantee Company of North America USA reserves the right to perform normal underwriting at the time of any bond request, including, without limitation, prior review and approval of relevant contract documents, bond forms, and project financing. We assume no liability to you or any other third parties if for any reason we do not execute such bonds.

Very truly yours,
The Guarantee Company of North America USA

Steven P. Edwards
Attorney in Fact

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

Civil Code § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
) ss
County of Fresno)

On 08-22-2018, before me, Lyn Genito, Notary Public, personally appeared Steven P. Edwards, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



(Seal)

Signature: Lyn Genito
Lyn Genito, Notary Public



The Guarantee Company of North America USA
Southfield, Michigan

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS: That THE GUARANTEE COMPANY OF NORTH AMERICA USA, a corporation organized and existing under the laws of the State of Michigan, having its principal office in Southfield, Michigan, does hereby constitute and appoint

Steven P. Edwards, Cody Lyman, Lyn Genito, Bonnie Gonzalez
Alliant Insurance Services, Inc.

its true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise.

The execution of such instrument(s) in pursuance of these presents, shall be as binding upon THE GUARANTEE COMPANY OF NORTH AMERICA USA as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at the principal office.

The Power of Attorney is executed and may be certified so, and may be revoked, pursuant to and by authority of Article IX, Section 9.03 of the By-Laws adopted by the Board of Directors of THE GUARANTEE COMPANY OF NORTH AMERICA USA at a meeting held on the 31st day of December, 2003. The President, or any Vice President, acting with any Secretary or Assistant Secretary, shall have power and authority:

1. To appoint Attorney(s)-in-fact, and to authorize them to execute on behalf of the Company, and attach the Seal of the Company thereto, bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof; and
2. To revoke, at any time, any such Attorney-in-fact and revoke the authority given, except as provided below
3. In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and authority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.
4. In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner – Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

Further, this Power of Attorney is signed and sealed by facsimile pursuant to resolution of the Board of Directors of the Company adopted at a meeting duly called and held on the 6th day of December 2011, of which the following is a true excerpt:

RESOLVED that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, contracts of indemnity and other writings obligatory in the nature thereof, and such signature and seal when so used shall have the same force and effect as though manually affixed.



IN WITNESS WHEREOF, THE GUARANTEE COMPANY OF NORTH AMERICA USA has caused this instrument to be signed and its corporate seal to be affixed by its authorized officer, this 2nd day of October, 2015.

THE GUARANTEE COMPANY OF NORTH AMERICA USA

STATE OF MICHIGAN
County of Oakland

Stephen C. Ruschak, President & Chief Operating Officer

Randall Musselman, Secretary

On this 2nd day of October, 2015 before me came the individuals who executed the preceding instrument, to me personally known, and being by me duly sworn, said that each is the herein described and authorized officer of The Guarantee Company of North America USA; that the seal affixed to said instrument is the Corporate Seal of said Company; that the Corporate Seal and each signature were duly affixed by order of the Board of Directors of said company.



Cynthia A. Takai
Notary Public, State of Michigan
County of Oakland
My Commission Expires February 27, 2024
Acting in Oakland County

IN WITNESS WHEREOF, I have hereunto set my hand at The Guarantee Company of North America USA offices the day and year above written.

I, Randall Musselman, Secretary of THE GUARANTEE COMPANY OF NORTH AMERICA USA, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney executed by THE GUARANTEE COMPANY OF NORTH AMERICA USA, which is still in full force and effect.



IN WITNESS WHEREOF, I have thereunto set my hand and attached the seal of said Company this 20th day of August, 2018

Randall Musselman, Secretary



May 11, 2017

Powder Mountain Water and Sewer Improvement District
C/O CRS Engineers
4246 Riverboat Rd., Suite 200
Salt Lake City, Utah 84123

Re: Zim Industries, Inc. – Prequalification letter

To Whom It May Concern:

The Guarantee Company of North America USA is privileged to act as surety for Zim Industries, Inc. The Guarantee Company of North America USA enjoys the A.M. Best's Guide rating of AVIII and is licensed to transact surety business in the State of California. The Guarantee Company of North America USA is currently Treasury listed and their NAIC number is 36650.

The Guarantee Company of North America USA has established a surety program for Zim Industries, Inc. dba: Bakersfield Well & Pump Co of \$10,000,000 million single contract, subject to a \$30,000,000 million aggregate.

As always, The Guarantee Company of North America USA reserves the right to perform normal underwriting at the time of any bond request, including, without limitation, prior review and approval of relevant contract documents, bond forms, and project financing. We assume no liability to you or any other third parties if for any reason we do not execute such bonds.

Very truly yours,
The Guarantee Company of North America USA

Steven P. Edwards
Attorney in Fact

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

Civil Code § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
) ss

County of Fresno)

On 05-11-2017, before me, Lyn Genito, Notary Public, personally appeared Steven P. Edwards, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(ies), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



(Seal)

Signature: *Lyn Genito*
Lyn Genito, Notary Public



The Guarantee Company of North America USA
Southfield, Michigan

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS: That **THE GUARANTEE COMPANY OF NORTH AMERICA USA**, a corporation organized and existing under the laws of the State of Michigan, having its principal office in Southfield, Michigan, does hereby constitute and appoint

Steven P. Edwards, Cody Lyman, Lyn Genito, Bonnie Gonzalez
Alliant Insurance Services, Inc.

its true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise.

The execution of such instrument(s) in pursuance of these presents, shall be as binding upon **THE GUARANTEE COMPANY OF NORTH AMERICA USA** as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at the principal office.

The Power of Attorney is executed and may be certified so, and may be revoked, pursuant to and by authority of Article IX, Section 9.03 of the By-Laws adopted by the Board of Directors of **THE GUARANTEE COMPANY OF NORTH AMERICA USA** at a meeting held on the 31st day of December, 2003. The President, or any Vice President, acting with any Secretary or Assistant Secretary, shall have power and authority:

1. To appoint Attorney(s)-in-fact, and to authorize them to execute on behalf of the Company, and attach the Seal of the Company thereto, bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof; and
2. To revoke, at any time, any such Attorney-in-fact and revoke the authority given, except as provided below
3. In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and authority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.
4. In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner – Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

Further, this Power of Attorney is signed and sealed by facsimile pursuant to resolution of the Board of Directors of the Company adopted at a meeting duly called and held on the 6th day of December 2011, of which the following is a true excerpt:

RESOLVED that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, contracts of indemnity and other writings obligatory in the nature thereof, and such signature and seal when so used shall have the same force and effect as though manually affixed.



IN WITNESS WHEREOF, **THE GUARANTEE COMPANY OF NORTH AMERICA USA** has caused this instrument to be signed and its corporate seal to be affixed by its authorized officer, this 2nd day of October, 2015.

THE GUARANTEE COMPANY OF NORTH AMERICA USA

Stephen C. Ruschak, President & Chief Operating Officer

Randall Musselman, Secretary

STATE OF MICHIGAN
County of Oakland

On this 2nd day of October, 2015 before me came the individuals who executed the preceding instrument, to me personally known, and being by me duly sworn, said that each is the herein described and authorized officer of The Guarantee Company of North America USA; that the seal affixed to said instrument is the Corporate Seal of said Company; that the Corporate Seal and each signature were duly affixed by order of the Board of Directors of



Cynthia A. Takai
Notary Public, State of Michigan
County of Oakland

My Commission Expires February 27, 2018
Acting in Oakland County

IN WITNESS WHEREOF, I have hereunto set my hand at The Guarantee Company of North America USA offices the day and year above written.

I, Randall Musselman, Secretary of **THE GUARANTEE COMPANY OF NORTH AMERICA USA**, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney executed by **THE GUARANTEE COMPANY OF NORTH AMERICA USA**, which is still in full force and effect.



IN WITNESS WHEREOF, I have thereunto set my hand and attached the seal of said Company this

11th day of May 2017

Randall Musselman, Secretary

A

STATE OF CALIFORNIA

GENERAL STATEMENT OF BANK CREDIT

June 7, 2018

(Date)

Department of Water Resources
Division of Engineering
Contract Development Branch
1416 9th Street (95814), Room 418
Sacramento, California 94236-0001

Bank Reference # 8718174276

In connection with the prequalification of

Zim Industries, Inc.

, a contractor,

(Name of Contractor)

under Section 10160 et seq. of the Public Contract Code to perform contracts with the State of California, Department of Water Resources, we hereby declare that said contractor has been extended a line of credit in a total amount not less than \$ 8,000,000.00, and that such credit will not be withdrawn or reduced without notice to the Department of Water Resources.

This letter is signed with the understanding that it is a document to be used by the State of California, Department of Water Resources only for the purpose of determining the financial resources of said contractor available for use in performing work under contracts which may be awarded to it by the Department during the term of its prequalification.

This General Statement of Bank Credit supersedes and replaces any General Statement of Bank Credit from the same Bank which may have been filed with the current Contractor's Statement of Experience and Financial Condition and will EXPIRE with the Annual Contractor's Statement of Experience and Financial Condition for which the line of credit was issued.

Comerica Bank

(Name of Bank)

5200 N Palm Ave. # 320

Fresno CA 93704

(Address)

Kesha Davis

(By)

Sr. Lending Associate

(Name and Title)

559-681-3196

(Phone)

COMERICA BANK
5200 N. PALM AVE. STE. 320
FRESNO, CA 93704

PLEASE NOTE: The above form may be used to augment your Working Capital when completed by your bank; or one with the same provisions may be issued on the bank's own letterhead.

E



ZIM INDUSTRIES, INC.

4532 E. Jefferson Ave. • Fresno, CA 93725
Ph. (559) 834-1551 • FAX (559) 834-5156
www.zimindustries.com

Application for Credit

Zim Industries, Inc.
4545 E. Lincoln Ave., Fresno, CA 93725

Phone: (559)834-1551
Fax: (559)834-5156

Date started at present location: 8/1979 Federal ID#: 94-2597729
Date of Incorporation: 8/7/1979 (State of Corporation-CA)

Type of Business: Well Drilling, Pump Installation and Repairs

Resale #'s (Note: For information only. Not intended to set-up all accounts as a Resale Account
Resale Account: Vendors will need a signed Resale Certificate to make a new account resale

CA-22-700402
AZ-07507926-P
NV-058440528

Contractor's License #'s
CA-440537 (A, C61/D21, C57)
AZ-113468
NV-0037248
UT-697

Corporate Officers:

President-Curt Zimmerer	1112 E. La Quinta, Fresno, CA 93720
VP/Secretary-Robert Zimmerer	3352 Purvis Ave., Clovis, CA 93619
VP/Treasurer-William P. Zimmerer	1660 N. Filbert, Clovis, CA 93611
VP-John Zimmerer	15152 Thunder Valley Rd., Bakersfield, CA 93314
VP-Brian Zimmerer	468 E. Walnut Hill Ave., Fresno, CA 93720
VP-Boyd Zimmerer	1495 E. Starpass Dr., Fresno, CA 93730
VP-Kevin Newlen	9809 Salerosa Ct., Bakersfield, CA 93312

Trade References:

	<u>Phone#</u>	<u>Fax#</u>
Arrow Electric, 645 Broadway, Fresno, CA 93721	559-266-0104	559-266-9159
Kelly Pipe, PO Box 2827, Santa Fe Springs, CA 90670 JSturgeon@kellypipe.com	661-835-1213	661-399-4541
Roscoe Moss, 31916 Famoso Rd., Bakersfield, CA 93250 rmcfamoso@roscoemoss.com	661-393-5756	661-393-1824

Banking Information:

Comerica Bank, 5200 N. Palm, Suite 320, Fresno, CA 93704 Account #1894813235
Kym Judson, Senior VP 559-244-3918 559-244-3909
kshudson@comerica.com

The above information is provided for the purpose of obtaining credit and is warranted to be true.
I authorize the seller or his agent to make a credit investigation.


Curt Zimmerer-Signature of Applicant

President

F



ZIMINDU-01

LMANZER

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
11/14/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Alliant Insurance Services, Inc. 2355 Gold Meadow Way Ste 250 Gold River, CA 95670	CONTACT NAME: Tracy Dolan		
	PHONE (A/C, No, Ext): (916) 210-0317	FAX (A/C, No): (916) 210-0343	
	E-MAIL ADDRESS: tracy.dolan@alliant.com		
INSURED Zim Industries, Inc.; Bakersfield Well & Pump Co. 4532 E. Jefferson Ave. Fresno, CA 93725	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A : Zurich American Insurance Company		16535
	INSURER B : Fireman's Fund Insurance Company		21873
	INSURER C :		
	INSURER D :		
	INSURER E :		
INSURER F :			


COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVR	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Employee Benefits Li	X	X	GLO8311662-14	03/01/2018	03/01/2019	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:						
	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY			BAP8311663-14	03/01/2018	03/01/2019	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE			SSE 00049022601	03/01/2018	03/01/2019	EACH OCCURRENCE \$ 9,000,000 AGGREGATE \$ 9,000,000
	DED RETENTION \$						
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	WC8311661-14	03/01/2018	03/01/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
RE: Equipping Well #7 Project

Monterey Peninsula Engineering, its officers, directors and employees are named additional insured for General Liability per attached forms. Coverage is primary and non-contributory. Waiver of Subrogation for General Liability and Workers Compensation applies per attached forms.

CERTIFICATE HOLDER Monterey Peninsula Engineering P.O. Box 2317 Monterey, CA 93942	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
--	--

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location And Description Of Completed Operations
Any person or organization, other than an architect, engineer or surveyor, whom you are required to add as an additional insured under this policy under a written contract or written agreement executed prior to loss, except where such requirement is prohibited by law and where that contract specifically requires the ISO CG2037 04/2013 edition form or the equivalent of same.	Any Location or project, other than a wrap-up or other consolidated insurance program location or project for which insurance is otherwise separately provided to you by a wrap-up or other consolidated insurance program.
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

A. Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and

2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance:**

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or
2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.



Other Insurance Amendment – Primary And Non-Contributory

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem	Return Prem.
GLO8311662-14	03/01/2018	03/01/2019	03/01/2018			

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

Named Insured: Zim Industries, Inc.; Bakersfield Well & Pump Co

Address (including ZIP Code): 4532 E. Jefferson Ave., Fresno, CA 93725

This endorsement modifies insurance provided under the:

Commercial General Liability Coverage Part

1. The following paragraph is added to the Other Insurance Condition of Section IV – Commercial General Liability Conditions:

This insurance is primary insurance to and will not seek contribution from any other insurance available to an additional insured under this policy provided that:

- a. The additional insured is a Named Insured under such other insurance; and
- b. You are required by a written contract or written agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.

2. The following paragraph is added to Paragraph 4.b. of the Other Insurance Condition of Section IV – Commercial General Liability Conditions:

This insurance is excess over:

Any of the other insurance, whether primary, excess, contingent or on any other basis, available to an additional insured, in which the additional insured on our policy is also covered as an additional insured on another policy providing coverage for the same "occurrence", offense, claim or "suit". This provision does not apply to any policy in which the additional insured is a Named Insured on such other policy and where our policy is required by written contract or written agreement to provide coverage to the additional insured on a primary and non-contributory basis.

All other terms and conditions of this policy remain unchanged.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location(s) Of Covered Operations
<p>Any person or organization, other than an architect, engineer or surveyor, whom you are required to add as an additional insured under this policy under a written contract or written agreement executed prior to loss, except where such requirement is prohibited by law and where that contract specifically requires the ISO CG2010 04/2013 edition form or the equivalent of same.</p>	<p>Any Location or project, other than a wrap-up or other consolidated insurance program location or project for which insurance is otherwise separately provided to you by a wrap-up or other consolidated insurance program.</p>

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

A. Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and

2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

- B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

C. With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance:**

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or

2. Available under the applicable Limits of Insurance shown in the Declarations;
whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

ALL PERSONS AND/OR ORGANIZATIONS THAT ARE REQUIRED BY WRITTEN CONTRACT OR AGREEMENT WITH THE INSURED, EXECUTED PRIOR TO THE ACCIDENT OR LOSS, THAT WAIVER OF SUBROGATION BE PROVIDED UNDER THIS POLICY FOR WORK PERFORMED BY YOU FOR THAT PERSON AND/OR ORGANIZATION

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Person Or Organization:

IF YOU ARE REQUIRED BY A WRITTEN CONTRACT OR AGREEMENT, WHICH IS EXECUTED BEFORE A LOSS, TO WAIVE YOUR RIGHTS OF RECOVERY FROM OTHERS, WE AGREE TO WAIVE OUR RIGHTS OF RECOVERY. THIS WAIVER OF RIGHTS SHALL NOT BE CONSTRUED TO BE A WAIVER WITH RESPECT TO ANY OTHER OPERATIONS IN WHICH THE INSURED HAS NO CONTRACTUAL INTEREST.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph **8. Transfer Of Rights Of Recovery Against Others To Us** of Section **IV – Conditions:**

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

DESIGNATED INSURED FOR COVERED AUTOS LIABILITY COVERAGE

This endorsement modifies insurance provided under the following:

AUTO DEALERS COVERAGE FORM
BUSINESS AUTO COVERAGE FORM
MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies person(s) or organization(s) who are "insureds" for Covered Autos Liability Coverage under the Who Is An Insured provision of the Coverage Form. This endorsement does not alter coverage provided in the Coverage Form.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Named Insured: ZIM INDUSTRIES, INC.

Endorsement Effective Date:

SCHEDULE

Name Of Person(s) Or Organization(s):

ANY PERSON OR ORGANIZATION TO WHOM OR WHICH YOU ARE REQUIRED TO PROVIDE ADDITIONAL INSURED STATUS OR ADDITIONAL INSURED STATUS ON A PRIMARY, NON-CONTRIBUTORY BASIS, IN A WRITTEN CONTRACT OR WRITTEN AGREEMENT EXECUTED PRIOR TO LOSS, EXCEPT WHERE SUCH CONTRACT OR AGREEMENT IS PROHIBITED BY LAW

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

Each person or organization shown in the Schedule is an "insured" for Covered Autos Liability Coverage, but only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured provision contained in Paragraph A.1. of Section II – Covered Autos Liability Coverage in the Business Auto and Motor Carrier Coverage Forms and Paragraph D.2. of Section I – Covered Autos Coverages of the Auto Dealers Coverage Form.

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ZIM INDUSTRIES, INC

FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2017 AND 2016

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CASSABON + FUNG, LLP
Certified Public Accountants

Board of Directors and Stockholders
of Zim Industries, Inc.

INDEPENDENT AUDITOR'S REPORT

We have audited the accompanying financial statements of Zim Industries, Inc., a California Subchapter S Corporation, which comprise the balance sheets as of December 31, 2017 and 2016, and the related statements of income, changes in stockholders' equity, and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Zim Industries, Inc. as of December 31, 2017 and 2016, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 1 to the financial statements, the Company has not established an allowance for doubtful accounts, and has a set policy on charging off uncollectible accounts receivable as they are deemed uncollectible. The direct charging off of uncollectible accounts is not in conformity with accounting principles generally accepted in the United States of America, and had the reserve method of accounting for uncollectible accounts been used, it would not have a material effect on the financial statements. Our opinion is not modified with respect to that matter.

Other Reporting Responsibilities

Our audit was made primarily for the purpose of expressing a conclusion that there are no material modifications that should be made to the financial statements in order for them to be in conformity with accounting principles generally accepted in the United States of America. The supplementary information included in the accompanying Schedules 1 through 12 are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information has been subjected to the audit procedures applied in the audit of the basic financial statements for the period ending December 31, 2017 and 2016, and we did not become aware of any material modifications that should be made to such information.



October 5, 2018

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ZIM INDUSTRIES, INC.
BALANCE SHEETS
DECEMBER 31, 2017 AND 2016

	2017	2016
<u>ASSETS</u>		
<u>Current assets</u>		
Cash and cash equivalents	\$ 6,475	\$ 12,064
Accounts receivable	11,876,062	13,394,115
Costs and estimated earnings in excess of billings on contracts in progress	3,588,767	4,115,392
Receivables - employees	5,688	4,002
Notes receivable - related parties	560	1,251,034
Prepaid expenses	284,503	242,982
Inventory	1,732,472	1,751,564
Total current assets	17,494,527	20,771,153
<u>Property, plant and equipment</u> , net of accumulated depreciation of \$14,431,651 and \$13,856,481	6,117,295	5,784,003
<u>Other assets</u>		
Investment	25,000	25,000
Deposits	6,950	497,485
Total assets	<u>\$ 23,643,772</u>	<u>\$ 27,077,641</u>
<u>LIABILITIES AND STOCKHOLDERS' EQUITY</u>		
<u>Current liabilities</u>		
Accounts payable	\$ 2,931,018	\$ 2,914,969
Accrued liabilities	301,986	308,406
Billings in excess of costs and estimated earnings on contracts in progress	1,493,074	1,962,280
Line of credit	5,628,710	3,150,058
Current portion of long-term debt	1,548,828	1,549,646
Sales tax payable	94,933	114,626
Total current liabilities	11,998,549	9,999,985
<u>Long-term debt</u> - less current portion	193,477	1,742,304
Total liabilities	12,192,026	11,742,289
<u>Stockholders' equity</u>		
Common stock, \$1 par value, 500,000 shares authorized, 1,000 shares issued and outstanding	1,000	1,000
Additional paid-in capital	1,145,800	1,145,800
Retained earnings	10,304,946	14,188,552
Total stockholders' equity	11,451,746	15,335,352
Total liabilities and stockholders' equity	<u>\$ 23,643,772</u>	<u>\$ 27,077,641</u>

The accompanying notes are an integral part of the financial statements.

ZIM INDUSTRIES, INC.
STATEMENTS OF INCOME
YEARS ENDED DECEMBER 31, 2017 AND 2016

	<u>2017</u>	<u>2016</u>
Earned contract revenue	\$ 44,506,657	\$ 63,388,414
Cost of earned contract revenue	<u>28,710,188</u>	<u>37,249,382</u>
Gross profit	<u>15,796,469</u>	<u>26,139,032</u>
Operating expenses	5,334,265	6,043,404
General and administrative expenses	5,577,370	6,739,420
Depreciation	<u>1,725,905</u>	<u>1,628,476</u>
Total operating expenses	<u>12,637,540</u>	<u>14,411,300</u>
Income from operations	<u>3,158,929</u>	<u>11,727,732</u>
Other income (expense):		
Gain on sales of assets	27,452	182,846
Other income	41,213	172,862
Change in fair market value on derivative instruments	-	17,436
Interest expense	(242,361)	(257,284)
Interest income	<u>592</u>	<u>17,062</u>
Total other income (expense)	<u>(173,104)</u>	<u>132,922</u>
Income before provision for income taxes	2,985,825	11,860,654
Provision for income taxes	<u>44,431</u>	<u>174,487</u>
Net income	<u><u>\$ 2,941,394</u></u>	<u><u>\$ 11,686,167</u></u>

The accompanying notes are an integral part of the financial statements.

ZIM INDUSTRIES, INC.
STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
YEARS ENDED DECEMBER 31, 2017 AND 2016

	Common Stock	Additional Paid-in Capital	Retained Earnings	Total Stockholders' Equity
Balance at December 31, 2015	\$ 1,000	\$ 1,145,800	\$ 17,402,385	\$ 18,549,185
Net income for the year	-	-	11,686,167	11,686,167
Capital distribution for the year	-	-	(14,900,000)	(14,900,000)
Balance at December 31, 2016	1,000	1,145,800	14,188,552	15,335,352
Net income for the year	-	-	2,941,394	2,941,394
Capital distribution for the year	-	-	(6,825,000)	(6,825,000)
Balance at December 31, 2017	\$ 1,000	\$ 1,145,800	\$ 10,304,946	\$ 11,451,746

The accompanying notes are an integral part of the financial statements.

ZIM INDUSTRIES, INC.
STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2017 AND 2016

	<u>2017</u>	<u>2016</u>
<u>Cash flows from operating activities</u>		
Net income	\$ 2,941,394	\$ 11,686,167
Adjustments to reconcile net income to net cash		
Provided by operating activities:		
Depreciation	1,725,905	1,628,476
Gain on sales of assets	(27,452)	(182,846)
Change in assets - (increase) decrease:		
Trade accounts receivable	1,518,053	6,539,976
Costs and estimated earnings in excess of billings	526,625	3,343,493
Prepaid expenses	(41,521)	(26,789)
Inventory	19,092	555,900
Receivables - employees	(1,687)	1,664
Deposits	490,535	(489,415)
Change in liabilities - increase (decrease):		
Accounts payable	16,049	150,689
Accrued liabilities	(6,420)	(1,013,350)
Billings in excess of costs and estimated earnings	(469,206)	(2,746,561)
Income taxes payable	-	(9,521)
Sales taxes payable	(19,693)	(88,850)
Net cash provided by operating activities	<u>6,671,674</u>	<u>19,349,033</u>
<u>Cash flows from investing activities</u>		
Proceeds on sale of equipment	61,562	318,357
Purchase of property, plant and equipment	(2,093,307)	(1,740,459)
Advances to related party notes	-	(1,250,475)
Repayments from related party notes	1,250,475	282,555
Net cash used in investing activities	<u>\$ (781,270)</u>	<u>\$ (2,390,022)</u>

The accompanying notes are an integral part of the financial statements.

ZIM INDUSTRIES, INC.
STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2017 AND 2016

	<u>2017</u>	<u>2016</u>
<u>Cash flows from financing activities</u>		
Net repayments on line of credit	\$ 2,478,652	\$ (502,468)
Principal payments on long-term debt	(1,549,645)	(1,544,479)
Capital distributions to shockholders	(6,825,000)	(14,900,000)
Net cash used in financing activities	<u>(5,895,993)</u>	<u>(16,946,947)</u>
Net increase (decrease) in cash and cash equivalents	(5,589)	12,064
Cash and cash equivalents, beginning	<u>12,064</u>	<u>-</u>
Cash and cash equivalents, ending	<u>\$ 6,475</u>	<u>\$ 12,064</u>
<u>Supplemental disclosure of non-cash investing and financing activities</u>		
Debt financed acquisition of equipment	<u>\$ -</u>	<u>\$ 79,508</u>
<u>Supplemental disclosure of cash flow information</u>		
Cash paid during the year for:		
Income taxes	<u>\$ 98,500</u>	<u>\$ 105,050</u>
Interest	<u>\$ 242,361</u>	<u>\$ 298,546</u>

The accompanying notes are an integral part of the financial statements.

ZIM INDUSTRIES, INC.
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017 AND 2016

1. Summary of Significant Accounting Policies

Nature of Operations - Zim Industries, Inc. (the Company) specializes in the installation of water wells and pumps, and construction of concrete lined ditches. The Company is also engaged in the sale and installation of irrigation systems and the sale of related parts, accessories and services. The Company, with locations in Fresno and Bakersfield (d.b.a. Bakersfield Well and Pump Company), generates the majority of its revenue from the installation of municipal water wells, pumps and systems.

Accounting Estimates - The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reported period. Actual results could differ from those estimates. These differences may be material.

Accounts Receivable - Accounts receivable represent short-term credits granted to the Company's customers and are stated at their face amount as of the reporting date of these financial statements. The Company does not generally require collateral for accounts receivable. The Company has a set policy on charging interest on accounts that pay late, placing customers on non-accrual status, or charging off uncollectible accounts receivable. The Company evaluates collectability of its accounts receivable on a per customer basis. As of December 31, 2017 and 2016, all accounts receivable are considered fully collectible; accordingly, no allowance for doubtful accounts has been established. If accounts become uncollectible, they will be charged to operations when that determination is made. Collections on accounts previously written off are included in other income as received. Had the reserve method of accounting for uncollectible accounts been used, it would not have a material effect on the financial statements.

Advertising Cost - Costs incurred in connection with advertising and promotion of the Company's services are expensed as incurred. Such costs amounted to \$62,677 and \$74,841 for the years ended December 31, 2017 and 2016, respectively.

Cash Equivalents - The Company considers securities with maturities of three months or less, when purchased, to be cash equivalents.

Compensated Absences - Employees of the Company are eligible for paid vacation and paid holidays, depending on job classification, length of service and other factors. All hourly employees are paid vacation and holiday hours earned on a weekly basis at the employee's current base pay rate.

On July 2, 2001, the Company established a separate vacation and holiday pay fund for its employees. All employees, on a voluntary basis, may elect to deduct, on an after-tax basis, a portion of their weekly paycheck and contribute to their individual vacation and holiday pay fund. Prior to September 2017, the Company maintained a separate custodial account for the vacation and holiday pay fund and money is disbursed at the employees' requests. In September 2017, the Company closed the account and disbursed all the funds to its employees. As of December 31, 2017 and 2016, the balances of the vacation and holiday pay fund were \$0 and \$187,583, respectively.

ZIM INDUSTRIES, INC.
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017 AND 2016

Fair Value of Financial Instruments - The Company adopted Financial Accounting Standards Board (FASB) ASC 820 on January 1, 2008. The adoption of FASB ASC 820 did not impact the Company's financial position, results of operations, liquidity or disclosures.

Accounting for Uncertain Income Tax Positions - On January 1, 2009, the Company adopted the provisions of FASB ASC 740-10. The Company records a liability for uncertain tax positions when it is probable that a loss has been incurred and the amount can be reasonably estimated. The Company continues to evaluate expiring statutes of limitations, audits, proposed settlements, changes in tax law and new authoritative rulings.

Derivatives - The Company uses interest rate swap contracts as cash flow hedges to eliminate the cash flow exposure of interest rate movements on variable rate debt. The Company adopted the provisions of FASB ASC 815 to account for its interest rate swap contracts as of January 1, 2009. See Note 7 for additional discussion.

Financial Statement Classification - In accordance with normal practice in the construction industry, the Company includes in current assets and liabilities amounts realizable and payable over a period in excess of one year. Consistent with this practice, asset and liability accounts relating to construction contracts, including related deferred income taxes, are classified as current.

Income Taxes - The Company has elected to be taxed under the provisions of Subchapter S of the Internal Revenue Code effective August 1, 2004. Under those provisions, the Company does not pay federal corporate income taxes on its taxable income. However, there are state franchise taxes imposed at the corporate level. The Company remains subject to examination by U.S. federal and state taxing authorities for the years 2014 through 2016. The shareholders are liable for individual federal and state income taxes on their respective shares of income or loss from the Company. For financial statement purposes, the Company accounts for income taxes in accordance with the provisions of FASB ASC 740-10.

Inventory - Inventory consists of irrigation system parts, PVC piping, pump assemblies and parts and is accounted for using lower of cost or market, determined on the first-in first-out (FIFO) basis.

Property, Plant and Equipment - Property and equipment additions and betterments are included in the asset accounts at cost. Maintenance and repairs are charged to expense when incurred. Depreciation for financial statement purposes is computed using primarily the straight-line and accelerated methods over the estimated useful lives of the assets.

Assets retired or otherwise disposed of are eliminated from the asset accounts and the related amounts of accumulated depreciation are eliminated from the accumulated depreciation accounts. Gains and losses from disposals are included in the determination of net income.

Long-lived assets to be held and used are reviewed for impairment whenever events or changes in circumstances indicate that the related carrying amount may not be recoverable. When required, impairment losses on assets to be held and used are recognized based on the fair value of the asset. No impairment losses were recognized for the years ended December 31, 2017 and 2016.

Reclassifications - Certain accounts in the prior-year financial statements have been reclassified for comparative purposes to conform to the presentation in the current-year financial statements.

ZIM INDUSTRIES, INC.
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017 AND 2016

Revenue Recognition - The Company records income on construction contracts using the percentage-of-completion method of accounting based on the proportion of costs incurred on the contract to total estimated contract costs, except that material estimated losses which are apparent prior to completion are provided for in their entirety. No profit is taken into income until a contract has reached a stage of completion sufficient to reasonably determine, in the opinion of management, the ultimate realizable profit. Base percentages which range from 1% to 5%, depending on the type of contract, are generally used to determine when a sufficient stage of completion has been reached. Claims for additional contract compensation due the Company are not reflected in the accounts until the year in which such claims are allowed. As contracts extend over one or more periods, revisions in estimated costs and profits are reflected in the accounting period in which the facts which require the revisions become known.

Direct contract costs include all direct labor and labor costs, materials, subcontractors, equipment costs and other costs related to contract performance, such as indirect labor, supplies, tools and repairs. General and administrative costs are charged to expense as incurred.

The asset, "Costs and estimated earnings in excess of billings," represents revenues recognized in excess of amounts billed on construction contracts in progress. The liability, "Billings in excess of costs and estimated earnings," represents billings in excess of revenues recognized on construction contracts in progress.

2. Costs and Estimated Earnings on Contracts in Progress

	<u>2017</u>	<u>2016</u>
Cost of Earned Contract Revenue and Sales	\$ 11,608,939	\$ 16,772,936
Gross Profit	<u>6,048,722</u>	<u>9,338,242</u>
Earned Contract Revenue and Sales	17,657,661	26,111,178
Less: Billings to Date	<u>15,561,968</u>	<u>23,958,066</u>
	<u>\$ 2,095,693</u>	<u>\$ 2,153,112</u>
Costs and Estimated Earnings in Excess of Billings on Contracts in Progress	\$ 3,588,767	\$ 4,115,392
Billings in Excess of Costs and Estimated Earnings on Contracts in Progress	<u>(1,493,074)</u>	<u>(1,962,280)</u>
	<u>\$ 2,095,693</u>	<u>\$ 2,153,112</u>

3. Receivables - Employees

Receivables - employees consists of unsecured non-interest bearing advances made to employees of the Company. All advances are expected to be repaid within the next operating cycle.

ZIM INDUSTRIES, INC.
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017 AND 2016

4. Investment in Closely Held Company

The stock investment held by the Company is stated at cost and consists of stock in National Contractors Insurance, LTD., which is generally non-transferable and not traded on the open market, thereby precluding any determination of current fair value. The Company received dividends totaling \$38,554 in 2017 and \$159,299 in 2016. The dividends are reported under Other Income on the Statement of Income.

5. Property, Plant and Equipment

Property, plant and equipment and the related accumulated depreciation at December 31, 2017 and 2016 are as follows:

	<u>2017</u>	<u>2016</u>
Fresno division:		
Land	\$ 204,522	\$ 204,522
Land improvements, 5 years	481,797	4,494
Building improvements, 15 years	315,859	243,688
Plant equipment, 5-7 years	8,351,634	8,496,439
Radio equipment, 5-7 years	25,716	130,277
Transportation equipment, 5-7 years	3,873,472	3,491,743
Office furniture and fixtures, 5-7 years	100,169	-
	<u>13,353,169</u>	<u>12,571,163</u>
Bakersfield division:		
Building improvements, 5-15 years	16,649	16,649
Plant equipment, 5-10 years	3,296,929	3,213,250
Radio equipment, 5-7 years	61,124	69,253
Transportation equipment, 5-10 years	3,782,991	3,743,131
Office furniture and equipment, 5 years	38,084	27,038
	<u>7,195,777</u>	<u>7,069,321</u>
Total property, plant and equipment	20,548,946	19,640,484
Less: accumulated depreciation	<u>(14,431,651)</u>	<u>(13,856,481)</u>
	<u>\$ 6,117,295</u>	<u>\$ 5,784,003</u>

Depreciation expenses for the years ended December 31, 2017 and 2016 were \$1,725,905 and \$1,628,476, respectively.

Certain assets have been pledged to line of credit and secure notes payable.

ZIM INDUSTRIES, INC.
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017 AND 2016

6. Line of Credit

The Company has an \$8,000,000 revolving line of credit with Comerica Bank. The outstanding balances were \$5,628,710 and \$3,150,058 as of December 31, 2017 and 2016, respectively. The interest on the line is calculated at 2% above the daily one month LIBOR. (3.57% as of December 31, 2017). The line is collateralized by an interest in accounts receivable, equipment, inventory, investment property, general intangibles, other rights to payment and all accounts with Comerica Bank.

The Company also has a revolving line of credit for equipment purchases with Comerica Bank at a rate of 2.20% above either the LIBOR or the Prime Referenced Rate. The Company had no outstanding balance on this line as of December 31, 2017 and 2016, but could borrow up to \$1,000,000.

7. Derivative Instruments and Hedging Activities

The Company is exposed to the impact of interest rate changes. The Company's objective is to manage the impact of interest rate changes on earnings and cash flows and on the market value of its borrowings. The Company entered into an interest rate swap to further manage its exposure to interest rate variations related to its borrowings and to lower its overall borrowing costs.

In December 2013, the Company entered into a swap agreement with Comerica Bank. The Company elected early adoption of ASU 2014-03 to account for this interest rate swap. ASU 2014-03 allows the use of the simplified hedge accounting approach for interest rate swaps. This approach allows a private company the option to measure the designated swap at settlement value instead of fair value. The primary difference between the settlement value and the fair value is that settlement value does not take into account any non-performance risk. This interest rate swap contract requires payment of a fixed rate of interest of 1.30% and the receipt of a variable rate of interest of the one-month LIBOR rate (0.77% as of December 31, 2017) on \$7,500,000 notional amount of indebtedness.

The Company recorded a derivative liability in the amount of \$9,452 based on the settlement value of the interest rate swap as of December 31, 2017 and 2016, respectively. Unrealized gain in the amount of \$0 and \$17,436 were made to the current year earnings from the mark to market adjustment in the years ended December 31, 2017 and 2016, respectively.

ZIM INDUSTRIES, INC.
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017 AND 2016

8. Long-Term Debt

A summary of long-term debt obligations at December 31, 2017 and 2016 are as follows:

	<u>2017</u>	<u>2016</u>
Adjustable rate note payable of \$7,500,000 to Comerica. Interest at 2.20% above the LIBOR. Principal due in equal monthly installments of \$125,000 commencing December 2013 to January 2019, secured by substantially all of the Company's assets.	\$ 1,625,000	\$ 3,125,000
0.00% note payable of \$51,364 to Ford Motor Credit Company. Principal and interest due in equal monthly installments of \$956 commencing October 2013 to September 2018, secured by 2013 vehicle.	7,705	17,977
4.24% note payable of \$30,582 to Ford Motor Credit Company. Principal and interest due in equal monthly installments of \$567 commencing December 2013 to December 2018, secured by 2013 vehicle.	6,645	13,014
5.99% note payable of \$40,304 to Ford Motor Credit Company. Principal and interest due in equal monthly installments of \$779 commencing August 2015 to July 2020, secured by 2015 vehicle.	22,322	30,079
3.89% note payable of \$18,734 to Ford Motor Credit Company. Principal and interest due in equal monthly installments of \$344 commencing August 2015 to July 2020, secured by 2015 vehicle.	10,132	13,789
3.89% note payable of \$32,958 to Ford Motor Credit Company. Principal and interest due in equal monthly installments of \$605 commencing September 2015 to August 2020, secured by 2015 vehicle.	18,371	24,785
3.89% note payable of \$39,754 to Ford Motor Credit Company. Principal and interest due in equal monthly installments of \$730 commencing March 2016 to March 2021, secured by 2015 vehicle.	26,065	33,653
3.89% note payable of \$39,754 to Ford Motor Credit Company. Principal and interest due in equal monthly installments of \$730 commencing March 2016 to March 2021, secured by 2015 vehicle.	<u>26,065</u>	<u>33,653</u>
Total Long-Term Debt	1,742,305	3,291,950
Less: Current Portion	<u>1,548,828</u>	<u>1,549,646</u>
	<u>\$ 193,477</u>	<u>\$ 1,742,304</u>

ZIM INDUSTRIES, INC.
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017 AND 2016

Long-term debts maturing in the next five years and thereafter are as follows:

2018	\$ 1,548,828
2019	161,026
2020	29,545
2021	2,906
2022	-
Thereafter	-
	<u>\$ 1,742,305</u>

9. Provision for Income Taxes

Income tax expense at December 31, 2017 and 2016 includes the following components:

	<u>2017</u>	<u>2016</u>
California franchise tax	\$ 44,381	\$ 174,437
New Mexico franchise tax	50	50
Income Tax Expense	<u>\$ 44,431</u>	<u>\$ 174,487</u>

10. Employee Benefit Plan

The Company maintains a 401(k) and profit-sharing plan for all employees who meet certain eligibility requirements such as age, term of employment, etc. Each participant may elect to contribute up to the maximum permitted under federal law and the contributions are fully vested and nonforfeitable. Profit-sharing contributions are discretionary and determined annually by the Board of Directors. The Company made matching contributions for the plan years ended December 31, 2017 and 2016 of \$92,951 and \$98,943, respectively.

The company also makes employer contributions for prevailing wage fringe benefits on prevailing wage rate projects. Contributions made to the plan based on the number of hours worked on prevailing wage rate projects are fully vested and nonforfeitable. The Company made employer contributions for prevailing wage fringe benefit of \$504,594 and \$551,825 for the plan years ended December 31, 2017 and 2016, respectively.

ZIM INDUSTRIES, INC.
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017 AND 2016

11. Concentration of Credit Risk

Financial Accounting Standards Board ASC 825-10-50-21 requires disclosure in the financial statements relating to concentrations of credit risk and financial instruments with off-balance-sheet risk. Financial instruments that potentially subject the corporation to concentrations of credit risk consist principally of temporary cash investments and trade receivables.

The Company is subject to concentrations of credit risk with respect to amounts of cash held at a financial institution in excess of federally insured deposit limits. A potential loss could be sustained by the Company should the financial institution not be able to meet its obligations and as such be unable to pay demands for withdrawal of cash when requested. At December 31, 2017 and 2016, the Company held \$0 and \$15,858, respectively, in excess of the federally insured deposit limit.

The Company provides water well irrigation system sales and construction services to a diversified group of customers in a variety of industries located throughout California. Credit is extended based on an evaluation of each customer's financial condition with no collateral obtained. New customers, with no credit history with the Company, are asked to make a deposit, generally based upon an agreed upon percentage of the total contract, before work commences. The risk of loss on accounts receivable is the balance owed at the time of default. Consequently, the Company's ability to collect the amounts due from customers is affected by the economic fluctuations in these geographic regions.

12. Commitments and Contingencies

The Company leases properties where the business is located from related parties. Future minimum lease payments are as follows:

	<u>Bakersfield Lease</u>	<u>Fresno Lease</u>
	Month to Month	
2018		\$ 390,654
2019		399,324
2020		410,013
2021		419,727
2022		429,063
Thereafter		<u>1,964,022</u>
		<u>\$ 4,012,803</u>

ZIM INDUSTRIES, INC.
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017 AND 2016

13. Litigation, Claims and Assessments

The Company may be involved in lawsuits and other contingencies arising out of the Company's operations in the normal course of business. As of December 31, 2017, there is no outstanding claim that will have a material adverse effect upon the business, financial position or results of operations of the Company.

14. Related Party Transactions

The total stockholder notes receivable balances as of December 31, 2017 and 2016 were \$559. The notes accrue interest at the annual rate of the Applicable Federal Rates for January 2016 (0.57%). Principal and interest payments are due on a quarterly basis. Total interest income earned for 2017 and 2016 were immaterial. In July 2016, the Company advanced approximately \$1,250,000 to an affiliate entity owned by stockholders of the Company for the construction of the Company's new corporate office in Fresno, California. The advance is evidenced by a promissory note with interest accrued at 3% per annum. The entire principal and accrued interest balance on this note were repaid in full in January 2017. The outstanding principal and accrued interest balances on these notes as of December 31, 2017 and 2016 are reflected in Notes receivable - related parties on the balance sheets.

In 2010, the Company entered into a six-year land lease in Bakersfield with an affiliated entity owned by stockholders of the Company. The lease will be extended on a year to year basis through May 2019. The Company leases its office space on a month-to-month basis from another entity owned by stockholders of the Company. Total rent payments made for the years ended December 31, 2017 and 2016 were \$132,000 and \$129,500, respectively.

In 2014 and 2015, the Company entered into two six-year land leases in Fresno with an affiliated entity owned by stockholders of the Company. The first lease calls for monthly payments of \$11,700 until completion of the office and shop buildings. The second lease calls for monthly payments of \$4,650 for the first three years and was set to increase to \$4,900 for the remaining portion of the lease. In October 2017, the Company renegotiated the leases. A ten-year lease for the Company's corporate office in Fresno was signed and calls for monthly payments of \$28,725 for the first lease year, then it will be increased by 2.5% each year for years two through ten on October 1st of each year. A six-year lease for the Company's storage yard in Fresno was signed and it calls for monthly lease payments of \$3,650 for years one through three, then it will increase to \$3,850 for years four through six. Total rent payments made for the years ended December 31, 2017 and 2016 were \$247,693 and \$215,726, respectively.

ZIM INDUSTRIES, INC.
NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2017 AND 2016

15. Subsequent Events

The Company extended their line of credit agreement in June 2018 with Comerica Bank with the same terms. The new maturity date is May 25, 2019.

The Company has evaluated subsequent events through October 5, 2018, the date which the financial statements were available to be issued.

SUPPLEMENTARY INFORMATION

ZIM INDUSTRIES, INC.
SCHEDULE OF INCOME BEFORE TAXES BY DIVISION
YEAR ENDED DECEMBER 31, 2017

SCHEDULE 1

	Fresno	Bakersfield	Total
Earned contract revenue	\$ 12,009,499	\$ 32,497,158	\$ 44,506,657
Cost of earned contract revenue	7,004,369	21,705,819	28,710,188
Gross profit	5,005,130	10,791,339	15,796,469
Operating expenses	2,739,838	2,594,427	5,334,265
General and administrative expenses	2,779,661	2,797,709	5,577,370
Depreciation	1,011,877	714,028	1,725,905
Total operating expenses	6,531,376	6,106,164	12,637,540
Income (loss) from operations	(1,526,246)	4,685,175	3,158,929
Other income (expense):			
Gain (loss) on sale of assets	31,098	(3,646)	27,452
Other income	21,590	19,623	41,213
Interest expense	(120,792)	(121,569)	(242,361)
Interest income	592	-	592
Total other income (expense)	(67,512)	(105,592)	(173,104)
Income (loss) before provision for income taxes	\$ (1,593,758)	\$ 4,579,583	\$ 2,985,825

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ZIM INDUSTRIES, INC.
SCHEDULE OF INCOME BEFORE TAXES BY DIVISION
YEAR ENDED DECEMBER 31, 2016

SCHEDULE 2

	Fresno	Bakersfield	Total
Earned contract revenue	\$ 21,404,816	\$ 41,983,598	\$ 63,388,414
Cost of earned contract revenue	11,169,404	26,079,978	37,249,382
Gross profit	10,235,412	15,903,620	26,139,032
Operating expenses	2,756,316	3,287,088	6,043,404
General and administrative expenses	3,462,652	3,276,768	6,739,420
Depreciation	861,894	766,582	1,628,476
Total operating expenses	7,080,862	7,330,438	14,411,300
Income from operations	3,154,550	8,573,182	11,727,732
Other income (expense):			
Gain on sale of assets	170,080	12,766	182,846
Other income	85,393	87,469	172,862
Change in fair market value on derivative instruments	17,436	-	17,436
Interest expense	(128,642)	(128,642)	(257,284)
Interest income	17,062	-	17,062
Total other income (expense)	161,329	(28,407)	132,922
Income before provision for income taxes	\$ 3,315,879	\$ 8,544,775	\$ 11,860,654

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ZIM INDUSTRIES, INC.
SCHEDULE OF OPERATING EXPENSES
YEAR ENDED DECEMBER 31, 2017

SCHEDULE 3

	<u>Fresno</u>	<u>Bakersfield</u>	<u>Total</u>
Vehicle expense	\$ 362,093	\$ 625,581	\$ 987,674
Wages, benefits and payroll taxes	596,761	1,020,676	1,617,437
Plant and equipment - repair and maintenance	1,366,949	361,284	1,728,233
Equipment rent	19,428	-	19,428
Shop supplies	246,842	193,273	440,115
Uniform expense	14,490	13,420	27,910
Insurance	145,080	345,739	490,819
Warranty	-	123,447	123,447
Miscellaneous	(11,805)	(88,993)	(100,798)
	<u>\$ 2,739,838</u>	<u>\$ 2,594,427</u>	<u>\$ 5,334,265</u>

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ZIM INDUSTRIES, INC.
SCHEDULE OF OPERATING EXPENSES
YEAR ENDED DECEMBER 31, 2016

SCHEDULE 4

	Fresno	Bakersfield	Total
Vehicle expense	\$ 391,883	\$ 650,307	\$ 1,042,190
Wages, benefits and payroll taxes	637,606	1,096,006	1,733,612
Plant and equipment - repair and maintenance	1,254,718	491,068	1,745,786
Equipment rent	19,627	-	19,627
Shop supplies	248,059	169,136	417,195
Uniform expense	16,208	15,384	31,592
Insurance	191,141	362,234	553,375
Warranty	-	616,335	616,335
Miscellaneous	(2,926)	(113,382)	(116,308)
	<u>\$ 2,756,316</u>	<u>\$ 3,287,088</u>	<u>\$ 6,043,404</u>

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ZIM INDUSTRIES, INC.
SCHEDULE OF GENERAL AND ADMINISTRATIVE EXPENSES
YEAR ENDED DECEMBER 31, 2017

SCHEDULE 5

	Fresno	Bakersfield	Total
Advertising	\$ 29,023	\$ 33,654	\$ 62,677
Officers' salaries	889,108	527,098	1,416,206
Office wages	687,607	1,084,149	1,771,756
Employee benefits	356,359	481,164	837,523
Payroll tax expense	117,019	124,751	241,770
Bank charges	31,020	37,660	68,680
Office supplies	42,863	20,620	63,483
Postage	4,491	13,948	18,439
Telephone	58,622	55,706	114,328
Utilities	38,547	43,059	81,606
Office repairs and maintenance	6,558	12,864	19,422
Miscellaneous	12,282	486	12,768
Professional fees	97,674	47,626	145,300
Dues and subscriptions	22,046	5,326	27,372
Donations	2,195	125	2,320
Vehicle expense	16,844	10,265	27,109
Rent	287,883	132,000	419,883
Taxes and licenses	135,882	46,464	182,346
Meals and entertainment	11,024	506	11,530
Administrative travel	3,302	103	3,405
Information technology	16,843	25,351	42,194
Bad debt	(87,531)	94,784	7,253
	<u>\$ 2,779,661</u>	<u>\$ 2,797,709</u>	<u>\$ 5,577,370</u>

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ZIM INDUSTRIES, INC.
SCHEDULE OF GENERAL AND ADMINISTRATIVE EXPENSES
YEAR ENDED DECEMBER 31, 2016

SCHEDULE 6

	Fresno	Bakersfield	Total
Advertising	\$ 36,636	\$ 38,204	\$ 74,840
Officers' salaries	1,157,623	638,770	1,796,393
Office wages	848,947	1,294,428	2,143,375
Employee benefits	385,738	469,346	855,084
Payroll tax expense	125,416	135,387	260,803
Bank charges	17,847	39,144	56,991
Office supplies	20,438	24,838	45,276
Postage	5,467	9,548	15,015
Telephone	58,685	52,054	110,739
Utilities	36,209	42,093	78,302
Office repairs and maintenance	2,380	16,205	18,585
Miscellaneous	30,643	888	31,531
Professional fees	160,900	103,066	263,966
Dues and subscriptions	19,047	5,569	24,616
Donations	10,750	900	11,650
Vehicle expense	11,496	6,960	18,456
Rent	256,009	131,322	387,331
Taxes and licenses	80,603	38,600	119,203
Meals and entertainment	9,446	314	9,760
Administrative travel	9,179	115	9,294
Information technology	18,167	28,679	46,846
Bad debt	161,026	200,338	361,364
	<u>\$ 3,462,652</u>	<u>\$ 3,276,768</u>	<u>\$ 6,739,420</u>

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ZIM INDUSTRIES, INC.
SCHEDULE OF CONTRACT EARNINGS AND SALES
YEAR ENDED DECEMBER 31, 2017

SCHEDULE 7

	<u>Revenue Earned</u>	<u>Cost of Revenue</u>	<u>Gross Profit</u>
Completed contracts and sales	\$ 56,306,058	\$ 35,524,379	\$ 20,781,679
Contracts in progress December 31, 2016	(26,111,178)	(16,772,936)	(9,338,242)
Contracts in progress December 31, 2017	17,657,661	11,608,939	6,048,722
Revenue earned and cost of revenue recognized in the prior years	<u>(3,345,884)</u>	<u>(1,650,194)</u>	<u>(1,695,690)</u>
	<u>\$ 44,506,657</u>	<u>\$ 28,710,188</u>	<u>\$ 15,796,469</u>

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ZIM INDUSTRIES, INC.
SCHEDULE OF CONTRACT EARNINGS AND SALES
YEAR ENDED DECEMBER 31, 2016

SCHEDULE 8

	<u>Revenue Earned</u>	<u>Cost of Revenue</u>	<u>Gross Profit</u>
Completed contracts and sales	\$ 68,341,180	\$ 38,155,883	\$ 30,185,297
Contracts in progress December 31, 2015	(30,386,133)	(17,319,192)	(13,066,941)
Contracts in progress December 31, 2016	26,111,178	16,772,936	9,338,242
Revenue earned and cost of revenue recognized in the prior years	<u>(677,811)</u>	<u>(360,245)</u>	<u>(317,566)</u>
	<u>\$ 63,388,414</u>	<u>\$ 37,249,382</u>	<u>\$ 26,139,032</u>

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ZIM INDUSTRIES, INC.
 SCHEDULE OF CONTRACTS IN PROGRESS
 YEAR ENDED DECEMBER 31, 2017

Contract Number	Total Contract			Jobs to Date			Billed to date (E)	Costs and Estimated Earnings in Excess of Billings	Billings in Excess of Costs and Estimated Earnings
	Adjusted Revenue	Estimated Gross Profit	(A) Revenue Earned	(B) Cost of Revenue	(C) Gross Profit	(D) Estimated Cost to Complete			
17056	\$ 2,884,964	\$ 865,489	\$ 983,366	\$ 688,356	\$ 295,010	\$ 1,331,119	\$ 1,140,176	\$ -	\$ 156,810
17045	1,496,967	363,860	1,482,402	1,122,082	360,320	11,025	1,361,876	120,526	-
17089	1,010,640	303,192	50,469	35,328	15,141	672,120	-	50,469	-
17040	925,541	277,662	15,126	10,588	4,538	637,291	-	15,126	-
17083	810,565	162,113	469,804	375,843	93,961	272,609	628,160	-	158,356
17033	465,153	221,177	465,153	243,976	221,177	-	465,528	-	375
17043	417,945	229,220	399,121	180,225	218,896	8,500	397,945	1,176	-
17094	383,912	115,174	55,332	38,733	16,599	230,005	142,622	-	87,290
17086	139,740	41,922	2,524	1,767	757	96,051	-	2,524	-
17090	104,800	31,440	1,797	1,258	539	72,102	-	1,797	-
Bonded	\$ 8,640,227	\$ 2,611,249	\$ 3,925,094	\$ 2,698,156	\$ 1,226,938	\$ 3,330,822	\$ 4,136,307	\$ 191,618	\$ 402,831
17091	861,728	258,518	132,110	92,477	39,633	510,733	-	132,110	-
16115	652,050	266,363	647,837	383,195	264,642	2,492	652,050	-	4,213
17082	335,143	159,761	257,474	134,737	122,737	40,645	301,793	-	44,319
17060	319,903	126,887	313,797	189,331	124,466	3,685	314,903	-	1,106
17020	308,095	152,303	307,947	155,717	152,230	75	308,095	-	148
Misc *	1,714,558	681,244	1,297,154	758,531	538,623	274,783	641,790	658,321	2,957
Non-Bonded	\$ 4,191,477	\$ 1,645,076	\$ 2,956,319	\$ 1,713,988	\$ 1,242,331	\$ 832,413	\$ 2,218,631	\$ 790,431	\$ 52,743
Fresno	\$ 12,831,704	\$ 4,256,325	\$ 6,881,413	\$ 4,412,144	\$ 2,469,269	\$ 4,163,235	\$ 6,354,938	\$ 982,049	\$ 455,574

ZIM INDUSTRIES, INC.
 SCHEDULE OF CONTRACTS IN PROGRESS
 YEAR ENDED DECEMBER 31, 2017

Contract Number	Total Contract		Jobs to Date			(E) Billed to date	Costs and Estimated Earnings in Excess of Billings	Billings in Excess of Costs and Estimated Earnings
	Adjusted Revenue	Estimated Gross Profit	(A) Revenue Earned	(B) Cost of Revenue	(C) Gross Profit			
16591	\$ 2,867,808	\$ 1,009,291	\$ 2,864,223	\$ 1,856,194	\$ 1,008,029	\$ 2,867,808	\$ -	\$ 3,585
17684	995,623	298,687	350,678	245,476	105,202	-	350,678	-
17711	818,487	245,546	25,021	17,517	7,504	281,500	-	-
17513	817,000	288,910	16,397	10,598	5,799	-	16,397	256,479
17743	670,000	170,000	321,292	239,772	81,520	188,150	133,142	-
17680	634,351	245,609	551,511	337,975	213,536	585,624	-	34,113
17795	576,927	6,146	86,429	85,506	923	90,000	-	3,571
17758	387,950	120,039	387,950	267,911	120,039	338,400	49,550	-
17710	366,530	109,959	13,100	9,169	3,931	-	13,100	-
17810	359,718	144,218	23,493	14,074	9,419	-	23,493	-
16863	334,136	116,948	233,377	151,695	81,682	264,730	-	31,353
17824	188,250	1,055	2,152	2,139	13	-	2,152	-
17732	90,759	29,368	88,292	59,723	28,569	-	88,292	-
Bonded	\$ 9,107,539	\$ 2,785,776	\$ 4,963,915	\$ 3,297,749	\$ 1,666,166	\$ 4,616,212	\$ 676,804	\$ 329,101
17751	\$ 2,884,013	\$ 2,685,204	\$ 82,281	\$ 5,672	\$ 76,609	\$ -	\$ 82,281	\$ -
16689	800,000	270,000	634,912	420,632	214,280	653,870	-	18,958
17745	478,464	143,539	7,249	5,075	2,174	-	7,249	-
17761	445,745	133,724	3,887	2,719	1,168	-	3,887	-
17733	433,025	131,634	415,795	289,400	126,395	361,950	53,845	-
17734	430,135	149,135	324,687	212,113	112,574	358,460	-	33,773
17747	421,025	131,025	10,471	7,212	3,259	-	10,471	-
17729	421,000	175,751	417,779	243,373	174,406	421,000	-	3,221
17809	400,000	120,000	165,188	115,631	49,557	274,300	-	109,112
16791	382,651	107,651	137,628	98,910	38,718	82,580	55,048	-
17769	382,510	115,588	103,867	72,481	31,386	114,500	-	10,633

See Independent Auditor's Report

ZIM INDUSTRIES, INC.
 SCHEDULE OF CONTRACTS IN PROGRESS
 YEAR ENDED DECEMBER 31, 2017

Contract Number	Total Contract			Jobs to Date			(E)	Costs and Estimated Earnings in Excess of Billings	Billings in Excess of Costs and Estimated Earnings
	Adjusted Revenue	Estimated Gross Profit	(A) Revenue Earned	(B) Cost of Revenue	(C) Gross Profit	(D) Estimated Cost to Complete			
16834	364,227	109,268	3,690	2,583	1,107	252,376	925	2,765	-
16654	350,000	150,000	8,260	4,720	3,540	195,280	-	8,260	-
16655	350,000	150,000	40,198	22,970	17,228	177,030	-	40,198	-
17748	327,398	99,398	3,804	2,650	1,154	225,350	-	3,804	-
17740	310,000	93,000	2,790	1,954	836	215,046	-	2,790	-
17752	309,796	92,939	3,829	2,681	1,148	214,176	-	3,829	-
17741	305,175	105,175	214,138	140,338	73,800	59,662	205,175	8,963	-
17808	300,660	100,660	16,882	11,230	5,652	188,770	-	16,882	-
17723	300,000	100,000	245,040	163,360	81,680	36,640	183,340	61,700	-
17725	294,460	100,844	240,615	158,211	82,404	35,405	269,010	-	28,395
17753	284,014	85,204	11,679	8,176	3,503	190,634	-	11,679	-
17590	279,724	83,917	9,021	6,316	2,705	189,491	-	9,021	-
17829	265,000	39,348	339	288	51	225,364	100,000	-	99,661
17755	257,494	77,248	1,056	740	316	179,506	-	1,056	-
17756	257,494	77,248	757	530	227	179,716	-	757	-
17757	257,494	77,248	4,843	3,391	1,452	176,855	-	4,843	-
Misc *	5,506,184	1,683,049	2,701,648	1,895,690	805,958	1,927,445	1,565,708	1,540,586	404,646
Non-Bonded	\$ 17,797,688	\$ 7,387,797	\$ 5,812,333	\$ 3,899,046	\$ 1,913,287	\$ 6,510,845	\$ 4,590,818	\$ 1,929,914	\$ 708,399
Bakersfield	\$ 26,905,227	\$ 10,173,573	\$ 10,776,248	\$ 7,196,795	\$ 3,579,453	\$ 9,534,859	\$ 9,207,030	\$ 2,606,718	\$ 1,037,500
Total	\$ 39,736,931	\$ 14,429,898	\$ 17,657,661	\$ 11,608,939	\$ 6,048,722	\$ 13,698,094	\$ 15,561,968	\$ 3,588,767	\$ 1,493,074

* Items included in "Misc" are Non-Bonded jobs with contract totals under \$250,000.

ZIM INDUSTRIES, INC.
 SCHEDULE OF CONTRACTS IN PROGRESS
 YEAR ENDED DECEMBER 31, 2016

Contract Number	Total Contract		Jobs to Date				Estimated Cost to Complete	(E) Billed to date	Costs and Estimated Earnings in Excess of Billings	Billings in Excess of Costs and Estimated Earnings
	Adjusted Revenue	Estimated Gross Profit	(A) Revenue Earned	(B) Cost of Revenue	(C) Gross Profit	(D) Estimated Cost to Complete				
15126	\$ 2,472,117	\$ 1,294,700	\$ 2,472,117	\$ 1,177,417	\$ 1,294,700	\$ -	\$ 2,477,117	\$ -	\$ 5,000	
16123	1,263,519	529,391	47,299	23,738	23,561	610,390	-	47,299	-	
16109	600,015	214,935	11,840	7,599	4,241	377,481	-	11,840	-	
16041	395,913	150,074	388,636	241,320	147,316	4,519	363,313	25,323	-	
15147	353,690	201,643	14,976	6,438	8,538	145,609	-	14,976	-	
15164	337,627	207,914	337,627	129,713	207,914	-	347,707	-	10,080	
16112	208,495	156,371	17,780	4,445	13,335	47,679	-	17,780	-	
13126	166,663	92,101	124,727	55,801	68,926	18,761	132,508	-	7,781	
16093	139,432	85,291	139,432	54,141	85,291	-	-	139,432	-	
15076	70,639	20,912	70,377	49,543	20,834	184	70,639	-	262	
16121	30,155	8,835	2,081	1,471	610	19,849	-	2,081	-	
Bonded	\$ 6,038,265	\$ 3,062,167	\$ 3,626,892	\$ 1,751,626	\$ 1,875,266	\$ 1,224,472	\$ 3,391,284	\$ 258,731	\$ 23,123	
16087	941,815	274,633	937,730	664,288	273,442	2,894	941,815	-	4,085	
15053	786,331	405,918	786,276	380,386	405,890	27	785,281	995	-	
16036	687,913	343,170	673,368	337,454	335,914	7,289	402,230	271,138	-	
16019	670,671	378,055	669,916	292,287	377,629	329	552,938	116,978	-	
16115	652,050	282,409	6,597	3,740	2,857	365,901	-	6,597	-	
16063	632,327	295,168	631,322	336,623	294,699	536	632,327	-	1,005	
16108	463,299	150,243	356,028	240,572	115,456	72,484	418,299	-	62,271	
16044	348,436	67,195	348,377	281,194	67,183	47	348,436	-	59	
Misc *	2,588,706	820,371	1,983,101	1,312,607	670,494	455,728	527,020	1,459,795	3,714	
Non-Bonded	\$ 7,771,548	\$ 3,017,162	\$ 6,392,715	\$ 3,849,151	\$ 2,543,564	\$ 905,235	\$ 4,608,346	\$ 1,855,503	\$ 71,134	
Fresno	\$ 13,809,813	\$ 6,079,329	\$ 10,019,607	\$ 5,600,777	\$ 4,418,830	\$ 2,129,707	\$ 7,999,630	\$ 2,114,234	\$ 94,257	

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ZIM INDUSTRIES, INC.
 SCHEDULE OF CONTRACTS IN PROGRESS
 YEAR ENDED DECEMBER 31, 2016

Contract Number	Total Contract		Jobs to Date			(E) Billed to date	Costs and Estimated Earnings in Excess of Billings	Billings in Excess of Costs and Estimated Earnings
	Adjusted Revenue	Estimated Gross Profit	(A) Revenue Earned	(B) Cost of Revenue	(C) Gross Profit			
16591	\$ 3,348,912	\$ 1,004,673	\$ 1,984,900	\$ 1,389,432	\$ 595,468	\$ 2,387,261	\$ -	\$ 402,361
15856	799,125	274,895	607,023	398,212	208,811	799,125	-	192,102
16784	595,275	154,483	552,963	409,462	143,501	525,075	27,888	-
16862	579,243	173,773	9,552	6,685	2,867	-	9,552	-
15801	553,480	166,044	300,086	210,060	90,026	340,450	-	40,364
16801	371,816	61,051	356,389	297,871	58,518	328,716	27,673	-
16816	363,869	109,161	176,080	123,257	52,823	-	176,080	-
16830	299,985	44,985	227,845	193,679	34,166	265,490	-	37,645
16863	241,091	72,327	5,453	3,818	1,635	-	5,453	-
16805	45,389	13,617	20,624	14,436	6,188	-	20,624	-
Bonded	\$ 7,198,185	\$ 2,075,009	\$ 4,240,915	\$ 3,046,912	\$ 1,194,003	\$ 4,646,117	\$ 267,270	\$ 672,472
15835	\$ 872,890	\$ 315,910	\$ 871,677	\$ 556,205	\$ 315,472	\$ 872,890	\$ -	\$ 1,213
15576	829,290	213,169	828,958	615,875	213,083	829,290	-	332
15757	561,110	176,247	540,494	370,723	169,771	561,109	-	20,615
16629	554,980	207,872	550,945	344,585	206,360	554,980	-	4,035
16851	525,000	200,000	16,275	10,075	6,200	-	16,275	-
16640	512,840	185,731	511,286	326,120	185,166	512,840	-	1,554
16836	494,850	194,850	226,112	137,080	89,032	449,800	-	223,688
16651	470,640	144,713	397,728	275,435	122,293	397,340	388	-
16647	440,000	210,000	27,210	14,223	12,987	-	27,210	-
16689	429,166	79,166	425,488	347,001	78,487	420,300	5,188	-
16543	428,641	178,641	17,767	10,362	7,405	-	17,767	-
16657	420,000	175,000	15,994	9,328	6,666	-	15,994	-
16658	420,000	180,000	11,945	6,826	5,119	-	11,945	-
16747	410,160	155,355	250,341	155,520	94,821	367,810	-	117,469
16721	400,000	130,000	13,552	9,147	4,405	-	13,552	-
16864	400,000	160,000	11,084	6,650	4,434	-	11,084	-

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ZIM INDUSTRIES, INC.
 SCHEDULE OF CONTRACTS IN PROGRESS
 YEAR ENDED DECEMBER 31, 2016

Contract Number	Total Contract			Jobs to Date			Estimated Cost to Complete	Billed to date	Costs and Estimated Earnings in Excess of Billings	Billings in Excess of Costs and Estimated Earnings
	Adjusted Revenue	Estimated Gross Profit	Revenue Earned	Cost of Revenue	Gross Profit	(A)				
16652	392,435	94,237	223,480	169,815	53,665	128,383	392,435	-	168,955	
16791	382,651	114,795	88	62	26	267,794	-	88	-	
16865	381,317	114,395	1,361	954	407	265,968	-	1,361	-	
16645	372,670	129,805	370,106	241,195	128,911	1,670	372,670	-	2,564	
16834	364,227	109,268	3,690	2,583	1,107	252,376	925	2,765	-	
15774	361,835	101,780	357,037	256,607	100,430	3,448	361,835	-	4,798	
16656	358,795	139,132	246,162	150,706	95,456	68,957	358,795	-	112,633	
16649	354,010	163,597	87,288	46,950	40,338	143,463	-	87,288	-	
16646	351,915	98,362	349,891	252,094	97,797	1,459	351,915	-	2,024	
16654	350,000	150,000	8,134	4,648	3,486	195,352	-	8,134	-	
16655	350,000	150,000	1,505	860	645	199,140	-	1,505	-	
16659	350,000	150,000	2,786	1,592	1,194	198,408	-	2,786	-	
16650	347,785	132,785	41,491	25,649	15,842	189,351	-	41,491	-	
16653	343,295	143,295	10,268	5,982	4,286	194,018	-	10,268	-	
16693	338,405	133,405	98,428	59,626	38,802	145,374	-	98,428	-	
16694	330,000	125,000	3,455	2,146	1,309	202,854	-	3,455	-	
16648	328,585	68,961	285,695	225,735	59,960	33,889	328,585	-	42,890	
15509	320,000	90,000	75,133	54,001	21,132	175,999	-	75,133	-	
16817	317,590	132,590	223,780	130,355	93,425	54,645	311,590	-	87,810	
16845	296,400	104,873	188,730	121,953	66,777	69,574	-	188,730	-	
16852	276,065	110,426	42,128	25,277	16,851	140,362	251,355	-	209,227	
16723	268,210	91,636	267,824	176,320	91,504	254	268,210	-	386	
15660	266,863	80,863	117,764	82,081	35,683	103,919	83,086	34,678	-	
16859	250,000	75,000	413	288	125	174,712	-	413	-	
Misc *	5,932,797	1,788,000	4,127,163	2,892,613	1,234,550	1,252,184	3,264,559	1,057,962	195,358	
Non-Bonded	\$ 22,155,417	\$ 7,498,859	\$ 11,850,656	\$ 8,125,247	\$ 3,725,409	\$ 6,531,311	\$ 11,312,319	\$ 1,733,888	\$ 1,195,551	
Bakersfield	\$ 29,353,602	\$ 9,573,868	\$ 16,091,571	\$ 11,172,159	\$ 4,919,412	\$ 8,607,575	\$ 15,958,436	\$ 2,001,158	\$ 1,868,023	
Total	\$ 43,163,415	\$ 15,653,197	\$ 26,111,178	\$ 16,772,936	\$ 9,338,242	\$ 10,737,282	\$ 23,958,066	\$ 4,115,392	\$ 1,962,280	

* Items included in "Misc" are Non-Bonded jobs with contract totals under \$250,000.

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ZIM INDUSTRIES, INC.
 SCHEDULE OF CONTRACTS COMPLETED
 YEAR ENDED DECEMBER 31, 2017

Contract Number	Contract Totals			Before January 1, 2017			Year Ended December 31, 2017		
	Revenue Earned	Cost of Revenue	Gross Profit	Revenue Earned	Cost of Revenue	Gross Profit	Revenue Earned	Cost of Revenue	Gross Profit
15126	\$ 2,472,117	\$ 1,177,417	\$ 1,294,700	\$ 2,472,117	\$ 1,177,417	\$ 1,294,700	\$ -	\$ -	\$ -
16123	1,263,519	644,581	618,938	47,299	23,738	23,561	1,216,220	620,843	595,377
15067	927,841	347,534	580,307	927,841	347,559	580,282	-	(25)	25
16109	647,418	417,384	230,034	11,840	7,599	4,241	635,578	409,785	225,793
17015	454,762	306,719	148,043	-	-	-	454,762	306,719	148,043
16041	395,913	245,839	150,074	388,636	241,320	147,316	7,277	4,519	2,758
16066	355,830	263,638	92,192	355,830	263,947	91,883	-	(309)	309
15147	353,690	152,510	201,180	14,976	6,438	8,538	-	-	-
15164	337,627	129,713	207,914	337,627	129,713	207,914	-	-	-
16024	320,495	120,987	199,508	320,495	120,428	200,067	-	-	-
17013	257,695	188,002	69,693	-	-	-	-	559	(559)
16105	224,618	41,988	182,630	67,467	23,613	43,854	257,695	188,002	69,693
16112	208,495	42,908	165,587	17,780	4,445	13,335	157,151	18,375	138,776
13126	166,663	75,691	90,972	124,727	55,801	68,926	190,715	38,463	152,252
16093	139,432	54,141	85,291	139,432	54,141	85,291	41,936	19,890	22,046
17068	132,561	83,564	48,997	-	-	-	-	-	-
17008	92,092	56,373	35,719	-	-	-	132,561	83,564	48,997
15076	70,639	49,727	20,912	70,377	49,543	20,834	92,092	56,373	35,719
16121	30,155	21,320	8,835	2,081	1,471	610	262	184	78
Bonded	\$ 8,851,562	\$ 4,420,036	\$ 4,431,526	\$ 5,298,525	\$ 2,507,173	\$ 2,791,352	\$ 3,553,037	\$ 1,912,863	\$ 1,640,174
16012	\$ 1,074,805	\$ 592,789	\$ 482,016	\$ 1,074,805	\$ 592,918	\$ 481,887	\$ -	\$ (129)	\$ 129
16087	941,815	667,182	274,633	937,730	664,289	273,441	4,085	2,893	1,192
15053	786,331	380,413	405,918	786,276	380,386	405,890	55	27	28
16036	687,913	347,576	340,337	673,368	337,454	335,914	14,545	10,122	4,423
16019	670,671	292,205	378,466	669,916	292,286	377,630	755	(81)	836
16063	632,327	337,159	295,168	631,322	336,623	294,699	1,005	536	469
15093	490,401	215,992	274,409	490,401	208,273	282,128	-	7,719	(7,719)
16108	463,299	316,724	146,575	356,028	240,572	115,456	107,271	76,152	31,119
16044	348,436	281,242	67,194	348,377	281,194	67,183	59	48	11
16031	251,058	164,913	86,145	172,632	172,632	-	78,426	(7,719)	86,145
Misc *	3,281,180	1,819,180	1,462,000	1,748,537	1,120,586	627,951	1,532,643	698,594	834,049
Non-Bonded	\$ 9,628,236	\$ 5,415,375	\$ 4,212,861	\$ 7,889,392	\$ 4,627,213	\$ 3,262,179	\$ 1,738,844	\$ 788,162	\$ 950,682
Fresno	\$ 18,479,798	\$ 9,835,411	\$ 8,644,387	\$ 13,187,917	\$ 7,134,386	\$ 6,053,531	\$ 5,291,881	\$ 2,701,025	\$ 2,590,856

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ZIM INDUSTRIES, INC.
 SCHEDULE OF CONTRACTS COMPLETED
 YEAR ENDED DECEMBER 31, 2017

Contract Number	Contract Totals				Before January 1, 2017				Year Ended December 31, 2017			
	Revenue Earned	Cost of Revenue	Gross Profit		Revenue Earned	Cost of Revenue	Gross Profit		Revenue Earned	Cost of Revenue	Gross Profit	
15856	\$ 799,125	\$ 530,265	\$ 268,860		\$ 607,023	\$ 398,212	\$ 208,811		\$ 192,102	\$ 132,053	\$ 60,049	
17501	640,783	374,189	266,594		-	-	-		640,783	374,189	266,594	
16862	632,731	497,696	135,035		9,552	6,685	2,867		623,179	491,011	132,168	
16784	595,275	440,792	154,483		552,963	409,462	143,501		42,312	31,330	10,982	
16816	363,869	278,631	85,238		176,080	123,257	52,823		187,789	155,374	32,415	
16801	363,866	310,765	53,101		356,389	297,871	58,518		7,477	12,894	(5,417)	
16830	333,390	257,783	75,607		227,845	193,679	34,166		105,545	64,104	41,441	
17698	259,224	258,779	445		-	-	-		259,224	258,779	445	
17699	250,552	236,081	14,471		-	-	-		250,552	236,081	14,471	
17583	219,332	144,312	75,020		-	-	-		219,332	144,312	75,020	
16826	182,710	134,173	48,537		166,872	116,810	50,062		15,838	17,363	(1,525)	
16711	102,000	70,872	31,128		2,898	2,029	869		99,102	68,843	30,259	
16697	84,711	52,539	32,172		-	-	-		84,711	52,539	32,172	
16696	74,961	52,400	22,561		46,076	32,253	13,823		28,885	20,147	8,738	
17631	68,900	30,061	38,839		-	-	-		68,900	30,061	38,839	
17534	64,926	45,351	19,575		-	-	-		64,926	45,351	19,575	
17731	52,300	25,477	26,823		-	-	-		52,300	25,477	26,823	
16788	45,500	11,810	33,690		10,495	2,724	7,771		35,005	9,086	25,919	
Bonded	\$ 5,134,155	\$ 3,751,976	\$ 1,382,179		\$ 2,156,193	\$ 1,582,982	\$ 573,211		\$ 2,977,962	\$ 2,168,994	\$ 808,968	
15835	872,890	556,980	315,910		871,677	556,205	315,472		1,213	775	438	
15576	829,290	616,121	213,169		828,958	615,875	213,083		332	246	86	
15757	561,110	384,863	176,247		540,494	370,723	169,771		20,616	14,140	6,476	
16629	554,980	347,108	207,872		550,945	344,585	206,360		4,035	2,523	1,512	
16851	526,910	352,820	174,090		16,275	10,075	6,200		510,635	342,745	167,890	
16640	512,840	327,109	185,731		511,286	326,120	185,166		1,554	989	565	
16836	494,850	275,300	219,550		226,112	137,080	89,032		268,738	138,220	130,518	
16651	470,640	325,927	144,713		397,728	275,435	122,293		72,912	50,492	22,420	
17558	454,878	335,352	119,526		-	-	-		454,878	335,352	119,526	
16658	448,565	274,104	174,461		11,945	6,826	5,119		436,620	267,278	169,342	
17689	434,990	314,371	120,619		-	-	-		434,990	314,371	120,619	
16647	434,895	260,776	174,119		27,210	14,223	12,987		407,685	246,553	161,132	
16657	431,440	251,346	180,094		15,994	9,328	6,666		415,446	242,018	173,428	
16543	416,913	270,721	146,192		17,767	10,362	7,405		399,146	260,359	138,787	
16747	410,160	254,805	155,355		250,341	155,520	94,821		159,819	99,285	60,534	
16659	409,210	288,479	120,731		2,786	1,592	1,194		406,424	286,887	119,537	
16721	398,900	246,998	151,902		13,552	9,147	4,405		385,348	237,851	147,497	

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SCHEDULE OF CONTRACTS COMPLETED
YEAR ENDED DECEMBER 31, 2017

Contract Number	Contract Totals			Before January 1, 2017			Year Ended December 31, 2017		
	Revenue Earned	Cost of Revenue	Gross Profit	Revenue Earned	Cost of Revenue	Gross Profit	Revenue Earned	Cost of Revenue	Gross Profit
16864	394,875	204,635	190,240	11,084	6,650	4,434	383,791	197,985	185,806
16652	392,435	298,198	94,237	223,480	169,815	53,665	168,955	128,383	40,572
16865	382,435	248,574	133,861	1,361	954	407	381,074	247,620	133,454
16645	372,670	242,865	129,805	370,106	241,195	128,911	2,564	1,670	894
15774	361,835	260,055	101,780	357,037	256,607	100,430	4,798	3,448	1,350
16656	358,795	219,663	139,132	246,162	150,706	95,456	112,633	68,957	43,676
16649	354,010	190,413	163,597	87,288	46,950	40,338	266,722	143,463	123,259
16646	351,915	253,553	98,362	349,891	252,094	97,797	2,024	1,459	565
16650	347,785	215,419	132,366	41,491	25,649	15,842	306,294	189,770	116,524
15801	340,450	210,060	130,390	300,086	210,060	90,026	40,364	-	40,364
16693	338,405	244,668	93,737	98,428	59,626	38,802	239,977	185,042	54,935
16694	334,475	174,895	159,580	3,455	2,146	1,309	331,020	172,749	158,271
16653	333,295	198,642	134,653	10,268	5,982	4,286	323,027	192,660	130,367
17544	333,055	234,625	98,430	-	-	-	333,055	234,625	98,430
16648	328,585	259,624	68,961	285,695	225,735	59,960	42,890	33,889	9,001
17500	326,293	266,954	59,339	-	-	-	326,293	266,954	59,339
17543	313,640	161,321	152,319	-	-	-	313,640	161,321	152,319
16817	311,590	232,895	78,695	223,780	130,355	93,425	87,810	102,540	(14,730)
16845	296,400	191,527	104,873	188,730	121,953	66,777	107,670	69,574	38,096
17560	295,968	208,933	87,035	-	-	-	295,968	208,933	87,035
17542	295,150	194,286	100,864	-	-	-	295,150	194,286	100,864
17675	291,356	254,945	36,411	-	-	-	291,356	254,945	36,411
17519	289,290	218,664	70,626	-	-	-	289,290	218,664	70,626
17514	280,034	221,849	58,185	-	-	-	280,034	221,849	58,185
17503	279,450	147,937	131,513	-	-	-	279,450	147,937	131,513
17636	276,935	178,670	98,265	-	-	-	276,935	178,670	98,265
16852	276,055	253,746	22,309	42,128	25,277	16,851	233,927	228,469	5,458
16723	268,210	176,574	91,636	267,824	176,320	91,504	386	254	132
17517	257,579	119,461	138,118	-	-	-	257,579	119,461	138,118
17599	252,800	161,280	91,520	-	-	-	252,800	161,280	91,520
Misc *	14,392,874	9,808,881	4,583,993	4,128,531	2,897,389	1,231,142	10,264,343	6,911,492	3,352,851
Non-Bonded	\$ 32,692,105	\$21,936,992	\$10,755,113	\$ 11,519,895	\$ 7,848,559	\$ 3,671,336	\$21,172,210	\$14,088,433	\$ 7,083,777
Bakersfield	\$ 37,826,260	\$25,688,968	\$12,137,292	\$ 13,676,088	\$ 9,431,541	\$ 4,244,547	\$24,150,172	\$16,257,427	\$ 7,892,745
Total	\$ 56,306,058	\$35,524,379	\$20,781,679	\$ 26,864,005	\$16,565,927	\$10,298,078	\$29,442,053	\$18,958,452	\$10,483,601

* Items included in "Misc" are Non-Bonded jobs with contract totals under \$250,000.

See Independent Auditor's Report

ZIM INDUSTRIES, INC.
 SCHEDULE OF CONTRACTS COMPLETED
 YEAR ENDED DECEMBER 31, 2016

Contract Number	Contract Totals			Before January 1, 2016			Year Ended December 31, 2016		
	Revenue Earned	Cost of Revenue	Gross Profit	Revenue Earned	Cost of Revenue	Gross Profit	Revenue Earned	Cost of Revenue	Gross Profit
15007	\$ 1,050,225	\$ 429,699	\$ 620,526	\$ 1,049,935	\$ 429,581	\$ 620,354	\$ 290	\$ 118	\$ 172
15067	927,841	347,559	580,282	412,324	206,162	206,162	515,517	141,397	374,120
15148	763,556	394,253	369,303	597,215	358,329	238,886	166,341	35,924	130,417
15112	584,546	215,346	369,200	450,855	180,342	270,513	133,691	35,004	98,687
16066	355,830	263,947	91,883	-	-	-	355,830	263,947	91,883
16024	320,495	120,428	200,067	-	-	-	320,495	120,428	200,067
15079	217,120	63,472	153,648	132,280	52,912	79,368	84,840	10,560	74,280
16029	159,220	58,332	100,888	-	-	-	159,220	58,332	100,888
16002	117,835	59,911	57,924	-	-	-	117,835	59,911	57,924
15169	100,640	59,859	40,781	-	-	-	100,640	59,859	40,781
16055	80,050	35,255	44,795	-	-	-	80,050	35,255	44,795
15134	67,680	32,284	35,396	43,778	26,267	17,511	23,902	6,017	17,885
Bonded	\$ 4,745,038	\$ 2,080,345	\$ 2,664,693	\$ 2,686,387	\$ 1,253,593	\$ 1,432,794	\$ 2,058,651	\$ 826,752	\$ 1,231,899
14171	\$ 1,118,035	\$ 552,885	\$ 565,150	\$ 793,075	\$ 452,053	\$ 341,022	\$ 324,960	\$ 100,832	\$ 224,128
16012	1,074,805	592,918	481,887	-	-	-	1,074,805	592,918	481,887
14155	1,042,045	579,933	462,112	911,912	501,552	410,360	130,133	78,381	51,752
15125	850,370	369,081	481,289	738,161	369,081	369,080	112,209	-	112,209
15064	788,365	386,092	402,273	318,521	149,705	168,816	469,844	236,387	233,457
15121	740,906	352,708	388,198	685,931	342,965	342,966	54,975	9,743	45,232
15110	731,021	293,127	437,894	716,973	287,320	429,653	14,048	5,807	8,241
16011	728,209	318,837	409,372	178,431	89,216	89,215	549,778	229,621	320,157
16046	722,275	371,205	351,070	-	-	-	722,275	371,205	351,070
15119	721,479	386,160	335,319	247,262	123,631	123,631	474,217	262,529	211,688
16069	717,965	342,705	375,260	-	-	-	717,965	342,705	375,260
15118	714,950	316,798	398,152	658,847	291,215	367,632	56,103	25,583	30,520
14082	713,766	379,939	333,827	-	-	-	713,766	379,939	333,827
14141	677,623	318,274	359,349	664,186	311,738	352,448	13,437	6,536	6,901
15045	670,835	272,129	398,706	651,132	263,614	387,518	19,703	8,515	11,188
15139	631,024	270,371	360,653	593,017	253,189	339,828	38,007	17,182	20,825

See Independent Auditor's Report

ZIM INDUSTRIES, INC.
 SCHEDULE OF CONTRACTS COMPLETED
 YEAR ENDED DECEMBER 31, 2016

Contract Number	Contract Totals			Before January 1, 2016			Year Ended December 31, 2016		
	Revenue Earned	Cost of Revenue	Gross Profit	Revenue Earned	Cost of Revenue	Gross Profit	Revenue Earned	Cost of Revenue	Gross Profit
15167	612,830	312,420	300,410	4,027	2,013	2,014	608,803	310,407	298,396
15166	582,425	262,172	320,253	374,296	187,148	187,148	208,129	75,024	133,105
15114	582,405	259,605	322,800	511,211	245,381	265,830	71,194	14,224	56,970
15091	527,167	230,297	296,870	215,143	107,571	107,572	312,024	122,726	189,298
15133	526,928	260,864	266,064	194,639	93,427	101,212	332,289	167,437	164,852
14090	490,881	227,851	263,030	490,400	227,629	262,771	481	222	259
15093	490,401	208,273	282,128	161,102	80,551	80,551	329,299	127,722	201,577
14087	470,130	204,123	266,007	180,472	90,236	90,236	289,658	113,887	175,771
14179	452,954	203,881	249,073	133,315	63,991	69,324	319,639	139,890	179,749
15082	420,411	197,953	222,458	397,768	186,837	210,931	22,643	11,116	11,527
16050	400,205	267,041	133,164	-	-	-	400,205	267,041	133,164
15140	354,000	176,053	177,947	33,760	18,568	15,192	320,240	157,485	162,755
16039	318,228	179,049	139,179	82,791	41,395	41,396	235,437	137,654	97,783
16079	317,480	231,499	85,981	-	-	-	317,480	231,499	85,981
16040	317,268	163,277	153,991	84,081	42,041	42,040	233,187	121,236	111,951
15090	298,914	149,738	149,176	269,832	134,880	134,952	29,082	14,858	14,224
15136	290,346	110,039	180,307	14,971	5,989	8,982	275,375	104,050	171,325
16042	286,501	161,703	124,798	-	-	-	286,501	161,703	124,798
16037	260,225	159,416	100,809	-	-	-	260,225	159,416	100,809
Misc *	5,571,744	3,398,305	2,173,439	3,281,787	1,973,345	1,308,442	2,289,957	1,424,960	864,997
Non-Bonded	\$ 26,215,116	\$13,466,721	\$12,748,395	\$ 13,587,043	\$ 6,936,281	\$ 6,650,762	\$12,628,073	\$ 6,530,440	\$ 6,097,633
Fresno	\$ 30,960,154	\$15,547,066	\$15,413,088	\$ 16,273,430	\$ 8,189,874	\$ 8,083,556	\$14,686,724	\$ 7,357,192	\$ 7,329,532

See Independent Auditor's Report

ZIM INDUSTRIES, INC.
 SCHEDULE OF CONTRACTS COMPLETED
 YEAR ENDED DECEMBER 31, 2016

Contract Number	Contract Totals						Before January 1, 2016						Year Ended December 31, 2016					
	Revenue Earned		Cost of Revenue		Gross Profit		Revenue Earned		Cost of Revenue		Gross Profit		Revenue Earned		Cost of Revenue		Gross Profit	
15676	\$	2,129,591	\$	1,161,372	\$	968,219	\$	1,226,951	\$	858,862	\$	368,089	\$	902,640	\$	302,510	\$	600,130
15851		652,783		361,223		291,560		25,269		15,150		10,119		627,514		346,073		281,441
14763		584,030		259,841		324,189		275,711		185,676		90,035		308,319		74,165		234,154
15850		307,254		436,371		(129,117)		62,391		37,409		24,982		244,863		398,962		(154,099)
15646		150,853		89,539		61,314		122,909		86,037		36,872		27,944		3,502		24,442
16539		52,880		33,909		18,971		-		-		-		52,880		33,909		18,971
16701		49,459		40,571		8,888		-		-		-		49,459		40,571		8,888
16538		44,920		24,852		20,068		-		-		-		44,920		24,852		20,068
16541		41,146		21,745		19,401		-		-		-		41,146		21,745		19,401
16540		40,406		23,189		17,217		-		-		-		40,406		23,189		17,217
16542		29,326		13,361		15,965		-		-		-		29,326		13,361		15,965
15864		28,100		16,696		11,404		-		-		-		28,100		16,696		11,404
16786		28,000		12,368		15,632		-		-		-		28,000		12,368		15,632
16726		27,942		27,942		-		-		-		-		27,942		27,942		-
15865		14,950		10,309		4,641		-		-		-		14,950		10,309		4,641
Bonded	\$	4,181,640	\$	2,533,288	\$	1,648,352	\$	1,713,231	\$	1,183,134	\$	530,097	\$	2,468,409	\$	1,350,154	\$	1,118,255
12656		771,788		400,508		371,280		673,308		383,749		289,559		98,480		16,759		81,721
15623		658,965		360,917		298,048		1,278		892		386		657,687		360,025		297,662
15836		630,585		436,884		193,701		48,525		33,969		14,556		582,060		402,915		179,145
15733		629,850		387,202		242,648		9,378		6,566		2,812		620,472		380,636		239,836
15732		611,975		355,636		256,339		217,323		152,124		65,199		394,652		203,512		191,140
16579		544,955		311,755		233,200		-		-		-		544,955		311,755		233,200
15796		492,275		332,627		159,648		296,763		203,297		93,466		195,512		129,330		66,182
15743		465,945		304,393		161,552		159,645		145,131		14,514		306,300		159,262		147,038
15734		437,265		245,457		191,808		341,150		210,652		130,498		96,115		34,805		61,310
15837		436,045		290,317		145,728		7,876		5,514		2,362		428,169		284,803		143,366
15838		408,825		252,499		156,326		10,574		7,402		3,172		398,251		245,097		153,154
16573		403,510		218,630		184,880		-		-		-		403,510		218,630		184,880
15506		398,385		236,784		161,601		59,676		41,774		17,902		338,709		195,010		143,699
15505		394,950		236,594		158,356		63,920		44,743		19,177		331,030		191,851		139,179
15767		386,725		231,833		154,892		13,573		9,500		4,073		373,152		222,333		150,819

See Independent Auditor's Report

ZIM INDUSTRIES, INC.
SCHEDULE OF CONTRACTS COMPLETED
YEAR ENDED DECEMBER 31, 2016

Contract Number	Contract Totals			Before January 1, 2016			Year Ended December 31, 2016		
	Revenue Earned	Cost of Revenue	Gross Profit	Revenue Earned	Cost of Revenue	Gross Profit	Revenue Earned	Cost of Revenue	Gross Profit
	15768	385,460	237,205	148,255	15,636	10,944	4,692	369,824	226,261
15507	384,065	241,764	142,301	74,213	51,578	22,635	309,852	190,186	119,666
15504	381,050	216,620	164,430	63,390	44,373	19,017	317,660	172,247	145,413
16561	358,665	224,191	134,474	-	-	-	358,665	224,191	134,474
15839	357,365	220,326	137,039	11,165	7,814	3,351	346,200	212,512	133,688
16661	356,000	175,946	180,054	-	-	-	356,000	175,946	180,054
15615	342,880	195,407	147,473	76,123	37,297	38,826	266,757	158,110	108,647
15595	333,000	238,556	94,444	325,774	233,379	92,395	7,226	5,177	2,049
15570	321,355	151,278	170,077	136,413	95,489	40,924	184,942	55,789	129,153
15745	317,765	197,252	120,513	15,993	8,557	7,436	301,772	188,695	113,077
16795	317,720	191,117	126,603	-	-	-	317,720	191,117	126,603
16500	315,427	222,034	93,393	-	-	-	315,427	222,034	93,393
15756	314,020	207,758	106,262	30,822	21,575	9,247	283,198	186,183	97,015
14798	311,495	201,947	109,548	19,274	13,491	5,783	292,221	188,456	103,765
16536	297,968	150,489	147,479	-	-	-	297,968	150,489	147,479
16628	291,300	146,009	145,291	-	-	-	291,300	146,009	145,291
14814	285,780	130,128	155,652	169,142	118,400	50,742	116,638	11,728	104,910
14771	284,700	109,706	174,994	154,430	108,102	46,328	130,270	1,604	128,666
15770	282,395	137,499	144,896	169,327	84,664	84,663	113,068	52,835	60,233
16567	278,714	199,687	79,027	-	-	-	278,714	199,687	79,027
15778	272,577	106,732	165,845	167,681	67,043	100,638	104,896	39,689	65,207
15790	272,350	186,542	85,808	3,626	2,537	1,089	268,724	184,005	84,719
14800	272,050	231,787	40,263	-	-	-	272,050	231,787	40,263
15769	269,045	165,546	103,499	8,459	5,921	2,538	260,586	159,625	100,961
14826	257,050	116,005	141,045	159,808	105,291	54,517	97,242	10,714	86,528
Misc *	17,667,147	10,871,962	6,795,185	4,751,513	3,184,013	1,567,500	12,915,634	7,687,949	5,227,685
Non-Bonded	\$ 33,199,386	\$20,075,529	\$13,123,857	\$ 8,255,778	\$ 5,445,781	\$ 2,809,997	\$24,943,608	\$14,629,748	\$10,313,860
Bakersfield	\$ 37,381,026	\$22,608,817	\$14,772,209	\$ 9,969,009	\$ 6,628,915	\$ 3,340,094	\$27,412,017	\$15,979,902	\$11,432,115
Total	\$ 68,341,180	\$38,155,883	\$30,185,297	\$ 26,242,439	\$14,818,789	\$11,423,650	\$42,098,741	\$23,337,094	\$18,761,647

* Items included in "Misc" are Non-Bonded jobs with contract totals under \$250,000.

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Preeminent Valuations &
Appraisals

The Mentor Group, Inc.
1014 Hopper Ave., Suite 710
Santa Rosa CA 95403
(tel) 707/473-0770
FFleischli@TheMentorGrp.com

TRANSMITTAL LETTER

November 15, 2013

Mr. Dan Grady, V.P.
Comerica Bank
5200 N. Palm, Ste. 320
Fresno, CA 93704

Dear Mr. Grady:

I have conducted a "Summary Appraisal Report" of the designated personal property (water drilling equipment, construction equipment and licensed vehicles) located at Zim Industries, Inc., 4545 E. Lincoln Ave., Fresno, CA and Zim Industries, Inc., dba Bakersfield Well Pump Co., 7712 Fruitvale Ave., Bakersfield, CA.

Based upon the data and conclusions presented in the report, it is my opinion that the value of the aforementioned property as of October 15, 2013 was:

**\$25,941,000 "MARKET VALUE" LOCATED AT FRESNO, CA
TWENTY-FIVE MILLION, NINE HUNDRED FORTY-ONE, THOUSAND DOLLARS**

**\$17,152,000 "ORDERLY LIQUIDATION VALUE" LOCATED AT FRESNO, CA
SEVENTEEN MILLION, ONE HUNDRED FIFTY-TWO, THOUSAND DOLLARS**

**\$16,413,000 "MARKET VALUE" LOCATED AT BAKERSFIELD, CA
SIXTEEN MILLION, FOUR HUNDRED THIRTEEN, THOUSAND DOLLARS**

**\$11,637,000 "ORDERLY LIQUIDATION VALUE" LOCATED AT BAKERSFIELD, CA
ELEVEN MILLION, SIX HUNDRED THIRTY-SEVEN, THOUSAND DOLLARS**

This appraisal has been made for the purpose of arriving at an opinion of "Market Value" and "Orderly Liquidation Value" of the above mentioned personal property assets appraised as of October 15, 2013. I understand the appraisal will be utilized by Comerica Bank, 5200 N. Palm, Ste. 320, Fresno, CA and Zim Industries, Inc., 4545 E. Lincoln Ave., Fresno, CA and Zim Industries, Inc., dba Bakersfield Well Pump Co., 7712 Fruitvale Ave., Bakersfield, CA, for asset based lending decisions, and may be invalid for other purposes.

Descriptions of the assets appraised, together with explanations of the appraisal procedures used, are presented in the report. The value opinions expressed in the appraisal are contingent upon the analyses, facts, and conditions presented in the accompanying report.

A copy of the report and the field data from which it was prepared will be retained in my files for five years and are available for inspection upon request.

Very truly yours,
Roger R. Chantal

Roger R. Chantal, ASA

GROUP	DESCRIPTION	VEH# / EQUIP#	MODEL YEAR	MAKE	DESCRIPTION	VIN # / S/N	MARKET VALUE
F100	PICKUPS & CARS						
F200	1 TON TRUCKS						
F300	PUMP RIGS/Crane TRUCKS/TRACTOR TRUCKS						
F400	TRAILERS						
F500	SPECIAL EQUIPMENT						
F600	DRILLING EQUIPMENT						
F700	SPECIAL EQUIPMENT						
F800	SPECIAL EQUIPMENT						
	(Added 800's in Sept. 2010)						
F124		2011	Dodge	Ram 1500 SLT 4x4 Quad Cab	1D7RV1GP6BS693719	\$25,000.00	
F125		2013	Ford	F-250 4x4 Quad Cab	1FT7W2BTXDEB46365	\$30,000.00	
F126		2013	Ford	Expedition - Limited	1FMJU1K5XDEF49099	\$50,000.00	
F127		2013	Ford	F-150 4x4 Crew Cab	1FTFW1EF6DKG32796	\$40,000.00	
F128		2014	Ford	F-150 4x4 Quad Cab	1FTFW1EF8EKD83399	\$45,000.00	
F129		2015	Ford	Explorer 4x4	1FM5K8D8XFGA46493	\$35,000.00	
F130		2015	Ford	F-250 4x4 Quad Cab	1FT7W2BTXFED20664	\$60,000.00	
F131		2015	Ford	Explorer 4x4 - Limited	1FM5K8F83FGC51019	\$40,000.00	
F132		2014	Ford	F-150 4x4 Supercrew	1FTFW1EF8EKE09550	\$35,000.00	
F133		2016	Ford	F-150 4x4 Supercrew Sport	1FTEW1EG5GFC16286	\$50,000.00	
F209		2006	Ford	F350 SD (Pump Service Truck)	1FDWW37P36ED43339	\$35,000.00	
F213		2005	Ford	F450 Flatbed Welding Truck #2	1FDXW46P95ED29732	\$36,000.00	
F214		2003	Ford	F350XL SUPERDUTY	1FDWF36F43EB08937	\$20,000.00	
F220		2006	Ford	F450 4x4 Pump Service	1FDXW47PX6ED09277	\$45,000.00	
F222		2008	Ford	F250	1FTSX21508EB21507	\$40,000.00	
F225		2008	Chevy	Silverado 250	1GCHC23698F132396	\$35,000.00	
F226		2005	Dodge	Ram 3500 Crew Cab	3D6WR38C65G743324	\$15,000.00	
F227		2006	Ford	E250 Cargo Van w/ Claude Laval F-2 Downhole Camera	1FTNE24L36DB07987	\$15,000.00	
F229		2007	Dodge	Ram 2500 4x4 Crew Cab Pickup 4074	3D7KS28D57G794074	\$15,000.00	
F230		2010	Dodge	Ram 2500 ST Crew Cab 4x4 Pickup	3D7UT2CL4AG114516	\$30,000.00	
F231		2013	Ford	F550 4x4 Crew Cab Pump Service	1FDOW5HT8DEA62521	\$70,000.00	
F232		2013	Ford	F550 4x4 Crew Cab Welding Truck	1FDOW5HT1DEA62523	\$70,000.00	
F233		2013	Ford	F550 4x4 Crew Cab Pump Service	1FDOW5HTXDEA62522	\$70,000.00	
F234		2014	Ford	F550 4x4 Crew Cab Pump Service	1FDOW5HT5EEA74563	\$70,000.00	
F235		2005	GMC	2500 HD Sierra Crew Cab	1GTHK29215E278168	\$18,000.00	
F236		2014	Dodge	Ram 2500 Tradesman Crew Cab Pickup	3C6TR4CT5EG328041	\$30,000.00	

VEH# / EQUIP#	MODEL YEAR	MAKE	DESCRIPTION	VIN # / S/N	MARKET VALUE
F237	2014	Dodge	Ram 2500 Trademan Crew Cab Pickup	3C6TR4CT0EG328044	\$30,000.00
F238	2014	Dodge	Ram 2500 Trademan Crew Cab Pickup	3C6TR4CT5EG328038	\$30,000.00
F239	2014	Dodge	Ram 2500 Trademan Crew Cab Pickup	3C6TR4CT7EG328039	\$30,000.00
F240	2014	Dodge	Ram 2500 Trademan Crew Cab Pickup	3C6TR4CT3EG328040	\$30,000.00
F241	2014	Dodge	Ram 2500 Trademan Crew Cab Pickup	3C6TR4CT2EG328045	\$30,000.00
F242	2014	Dodge	Ram 2500 Trademan Crew Cab Pickup	3C6TR4CT7EG328042	\$30,000.00
F243	2014	Dodge	Ram 2500 Trademan Crew Cab Pickup	3C6TR4CT9EG328043	\$30,000.00
F244	2014	Dodge	Ram 2500 SLT Crew Cab Pickup	3C6UR5DL4EG187066	\$40,000.00
F245	2014	Dodge	Ram 2500 SL TV8 Crew Cab Pickup	3C6TR5DT1EG207253	\$35,000.00
F246	2012	Ford	F-250 4x4 Crew Cab	1FT7W2BT2CEC96727	\$40,000.00
F247	2015	Ford	F-550 SuperDuty 4x4 Crew Cab	1FD0W5HT5FEC18484	\$55,000.00
F248	2015	Ford	F-350 SuperCab 4x4	1FT8X3BT8FEC45857	\$55,000.00
F249	2016	Ford	F550 4x4 Crew Cab Pump Service	1FD0W5HT0GEA73548	\$70,000.00
F250	2011	Chevy	2500 SuperCab 4x4 Diesel Truck	1GC1KVC81BF190128	\$20,000.00
F251	2012	Ford	F-250 4x4 SuperCab Diesel Truck	1FT7X2BT8CEB93695	\$25,000.00
F252	2013	GMC	2500HD Sierra Crew Cab 4x4 Truck	1GT120CG2DF189860	\$30,000.00
F253	2007	Ford	F550 XL 4x4 SuperDuty Mechanics Truck	1FDAF57Y87EA91703	\$30,000.00
F254	2015	Ford	F-250 4x4 Crew Cab SuperDuty	1FT7W2B64FED42377	\$35,000.00
F255	2015	Ford	F-250 4x4 Crew Cab SuperDuty	1FT7W2B65FED68048	\$35,000.00
F301	1975	Auto Car	w/WENCH (off-road)	XP1FPNDO76886	\$10,000.00
F304	1991	Freightliner	SEMI TRACTOR w/ 9045 EZ Bore Rig	1FUFDZYB8MH503633	\$70,000.00
F310	1986	Ford	9000 SEMI 12 1/2 T NATIONAL	1FDYA92W6GVA21319	\$30,000.00
F315	1977	Auto Car	w/ WINCH (off-road)	PT1FPNDO79485	\$10,000.00
F316	1987	International	S2300 w/ 50T PUMP RIG	1HSZDF6N7HHB10519	\$85,000.00
F318	1986	International	50T PUMP RIG	1HTLDJGN5GHA44233	\$75,000.00
F327	1991	Mack	SEMI TRACTOR 3-axle	1M2AA13Y5MMW012443	\$10,000.00
F330	1988	Ford	L8000 Jet Rodde Tr. -Diesel	1FDYR80U9JVA24145	\$10,000.00
F331	1977	Chevy	EZ Bore Rig 9042	CJV737V129173	\$25,000.00
F334	1997	Peterbilt	SEMI TRACTOR Red 360 Rig	1XP5DB9X8VN423844	\$27,000.00
F335	1998	International	4900 12T Smeal Rig	1HTSDAAN2WH594780	\$20,000.00
F338	1988	International	2-Axle Tractor Truck from BWP	1HSZDGFN6JH548926	\$10,000.00
F340	1996	Mack	CH612 w/ Semco S25 Pump Rig	1M1AA19Y7TW008615	\$175,000.00
F344	1992	International	IHC 4900 DUMP BODY -0335283	1HTSDNWN0NH145666	\$5,750.00
F345	1990	International	Paystar 5000 F5070 6X6 Tractor	2HSTNGRT9LCO39565	\$12,000.00
F346	1998	Ford	L9000 2-Axle Diesel Water Truck	1FTXY92K0WVA13188	\$25,000.00

VEH# / EQUIP#	MODEL YEAR	MAKE	DESCRIPTION	VIN # / S/N	MARKET VALUE
F350	1999	KENWORTH / Howard Turner	W900B T/A w/ Howard Turner 5200-D Drill Rig (was on F62	1NKWLT9X2XR825531	\$500,000.00
F353	2003	KW	W900B w/ Semco S30,000 Pump Rig	1XKWDB9X23R384894	\$190,000.00
F355	2003	Freightliner	FLD120SD T/A w/ 12 1/2 Ton National 556B Crane	1FVHALAN03PK59695	\$50,000.00
F356	2004	Peterbilt	3-Axle Sleeper Truck	1XPGB9X84D828096	\$36,000.00
F358	1995	Ford	F800 w/ Pitman Polecat Bucket Rig	1FDNF80C4SVA35946	\$3,500.00
F360	1986	MACK	CAB & CHASSIS ONLY	1M2T177C5GM003364	\$3,250.00
F361	2000	Freightliner	FL80 Truck w/ Semco S30,000	1FVXJLBB1YDH29762	\$190,000.00
F362	1995	Freightliner	FL80 Truck w/ Semco S25,000	1FVXJLBB9SL550783	\$175,000.00
F368	2010	Peterbilt	3-Axle 388 Sleeper Truck	1XPWD49X2AD106674	\$70,000.00
F369	2010	Peterbilt	3-Axle 388 Sleeper Truck	1XPWD49XXAD106356	\$70,000.00
F370	2010	Peterbilt	3-Axle 388 Sleeper Truck	1XPWD49X8AD106355	\$70,000.00
F375	2013	International	Prostar+113 Truick Tractor	1HSDHSJRXDJ149882	\$45,000.00
F376	2009	International	Prostar Premium Truick Tractor	2HSCUSBR19C065896	\$25,000.00
F377	2011	International	Prostar Premium Truick Tractor	1HSCUSJR4BJ365540	\$25,000.00
F378	2016	Western Star	4700SB Truck w/ Hunke #1 50T Pump Rig	5KKHAXCY0GPHH6833	\$350,000.00
F379	2001	International	4700 Dump Truck	1HTSCABP71H368889	\$15,000.00
F380	2011	Ford	F750 w/ National 571E2 18-Ton Boom	3FRPF7FA9BV087030	\$95,000.00
F381	2011	Ford	F750 w/ National 571E2 18-Ton Boom	3FRPF7FC9BV537261	\$95,000.00
F382	2011	Ford	F750 w/ National 571E2 18-Ton Boom	3FRPF7FC7BV537260	\$95,000.00
F383	2017	Western Star	4700SB Truck w/ Hunke #2 50T Pump Rig	5KKHAXCY4HPJC2173	\$350,000.00
F384	2008	KENWORTH	T800	1XKDD40X98J935599	\$50,000.00
F385	2012	KENWORTH	T800 w/ Manitex 2281C Boom Truck	1NKDL40XXCJ958640	\$170,000.00
F401	1978	Aztec	40' Highboy Trailer	2906	\$5,000.00
F402	1988	JACOBSON	TILT TRAILER	CA494508	\$5,000.00
F403	1989	JACOBSON	RAMP TRAILER	1J9GE1KB6KFO15403	\$5,000.00
F404	1991	ZIM	2 AXLE BOX TRAILER	CA624555	\$3,000.00
F405	1989	DENAIR	YELLOW TRAILER	4CZTB3023K129F230	\$5,000.00
F406	1992	ZIM	GOOSENECK	CA643121	\$5,000.00
F407	1974	Strickland	40' Highboy Trailer 7400NW	183366	\$5,000.00
F408	1993	BROWN	FLAT BED TRAILER	S651258	\$5,000.00
F409	1996	ABU	CAR TRAILER 6'10" X 16'4"	4UGFC1621TDOO5287	\$5,000.00
F410	1982	HOBBS	38' Float Trailer M75K38	1H5J0382XCNO12301	\$3,000.00
F411	1975	RIVIA	IDECO DRILL COLLAR TRAILER	252047576	\$5,000.00
F412	1975	DORSEY	JED-A MISC. TRAILER	115299	\$5,000.00
F413	1973	FRUEHAUF	360 TRAILER #1	MER401905	\$5,000.00

VEH# / EQUIP#	MODEL YEAR	MAKE	DESCRIPTION	VIN # / SIN	MARKET VALUE
F414	1967	DELTA	360 #2 DRILL PIPE TRAILER	CA951710	\$5,000.00
F415	1952	FRUEHAUF	360 #1 Drill Pipe Trailer w/ lay down rack	FW72656	\$5,000.00
F416	1957	MARTIN CARRIER	LOWBOY TRAILER - 43'	7910	\$5,000.00
F417	1999	ZIM	HEAVY PIPE TRAILER	CA846346	\$3,000.00
F418	2006	DITCH WITCH	13' x 5' Equipment Trailer S6B	1DSB181E261701118	\$3,000.00
F419	2014	DIAMOND C	25' X 102" Gooseneck Trailer FLT210	46UFU2529E1160827	\$9,000.00
F420	1981	TRAILMOBILE	TRAILER	V51617	\$5,000.00
F421	1985	AZTEC	Step Deck EQUIPMENT TRAILER	1AZBR1B39F1016782	\$5,000.00
F422	1969	TRAILMOBILE	IDECO MISC. TRAILER	F6443	\$5,000.00
F423	1972	ZIM	Alum. PIPE TRAILER	CA718909	\$3,000.00
F424	2015	BIGTEX	22GN HD GOOSENECK TRAILER	16VGX2020F6031542	\$9,000.00
F425	1976	HOBBS	LINDSAY Drill Collar Trailer (360#2)	FHX676713	\$5,000.00
F426	1976	HOBBS	LINDSAY	FHX665501	\$5,000.00
F427	1972	UTILITY	JED-A DRILL PIPE TRAILER	6L60308006FS2C	\$5,000.00
F428	1974	TRANSCRAFT	5 1/2" zone test pipe trailer (360#2)	TC6814	\$5,000.00
F429	1974	MILLER	360 #1 Drill Collar Trailer w/ laydown rack	X17903	\$5,000.00
F431	2004	ZIM	Alum. PIPE TRAILER	CA880439	\$3,000.00
F432	2000	ZIM	BOX TRAILER 6X12 Small	CA880452	\$3,000.00
F433	1993	TRAILZEZE	SLIDING AXLE Equip. Trailer Ron	1DA72C827PM010852	\$20,000.00
F434	1982	AZTEC	TRAILER w/ Folding Landing Gear	1AZBG1A19B1012514	\$5,000.00
F435	1979	TRAILMOBILE	Misc. Trailer (360#2)	T52899	\$5,000.00
F436	1990	WABASH	IDECO DRILL PIPE TRAILER	1JJF45269LL149997	\$5,000.00
F438	2002	PJ	24' BLACK TRAILER	4P5PH182521042394	\$5,000.00
F439	1981	Aztec	40' Highboy Trailer for 360#1	1AZBG1A10B1012108	\$5,000.00
F440	1979	Fruehauf	360 #1 5 1/2" PIPE TRAILER	FRZ692402	\$5,000.00
F441	1996	Eager Beaver	Lowboy Black Equipment Trailer	112SD2484RL043652	\$20,000.00
F442	1988	Eager Beaver	Flatbed	112HAM28XKA030701	\$5,000.00
F443	2003	Zim	Box Trailer 5'x13' Bill Z.	CA995557	\$3,000.00
F444	2004	Eagle	6 1/2x15x4 Dump Trailer	1C9BE25284P692693	\$6,000.00
F445	2000	UTILITY	CONTRAIL C-10 12K lb. Trailer	4KNUC16261L161483	\$3,000.00
F446	1972	Blue	Drop Deck Sub Base (was B-702)360#1	7L24707002	\$5,000.00
F447	1998	TRANSCRAFT	45' 2-AXLE TRAILER	26834	\$5,000.00
F448	1980	AZTEC	40' 2-AXLE TRAILER 128 Rig	8359	\$5,000.00
F449	1981	FRUEHAUF	40' 2-AXLE TRAILER	FRT043204	\$5,000.00
F450	1998	ZIEMAN	4-TON MODEL 1150 EQUIP.	1ZCT21S26WZP20148	\$5,000.00

VEH# / EQUIP#	MODEL YEAR	MAKE	DESCRIPTION	VIN # / S/N	MARKET VALUE
F451	1979	WATER TANKER	WATER TANKER TRAILER 9500 gal	V41233	\$5,000.00
F452	2005	MWLDG BEELINE	20' CAR TRAILER MAXIY	5GXCF20245M004987	\$5,000.00
F453	1978	BUSH-HOG	DOGHOUSE TRAILER 320	CB780054	\$10,000.00
F454	1979	FRUEHAUF	STRETCH DECK TRAILER	FWV955202	\$5,000.00
F455	1979	AZTEC	360 #1 Drill Pipe Trailer	4749	\$5,000.00
F456	1976	TRAILMOBILE	45' TRAILER	CA1049594	\$5,000.00
F457	1965	TRAILMOBILE	40' FLATBED	217233	\$5,000.00
F458	1962	FRUEHAUF	32' FLATBED	VVB172301	\$5,000.00
F459	1965	Brown	28' FLATBED TRAILER	S650974	\$3,000.00
F460	1968	Brown	28' FLATBED TRAILER	S683908C	\$3,000.00
F461	1946	Calla	31' LONG FLATBED TRAILER (was B-639)	2276	\$5,000.00
F462		FUUT	JED-A MISC. TRAILER	GW1V580	\$5,000.00
F463	1991	TRAIL KING	48' X 102" SLIDING AXLE FLATBED	1TKA0482XMM069285	\$25,000.00
F464		Valmont / FEM	500 BARREL FRAC TANK	583 / 7691VB	\$5,000.00
F465	1970	TRAILMOBILE	42' FLATBED TRAILER	F28405	\$3,000.00
F466	1983	HOBBS	45' FLATBED TRAILER Spread Axle	1H5PO4529DN012201	\$2,000.00
F467	1987	WEST MARK	WEST MARK SPC SEMI TANK TRAILER 6114807	16WTE1235HC118177	\$10,000.00
F468	2005	ARGO	T-3010-8E w/ FWI Triplex Pump Mounted & 1000 gal. water	1A9FC10325P463002	\$14,000.00
F469	1984	RAVEN	45' ALUMINUM FLATBED	1R1F04525EEE840134	\$10,000.00
F470	1995	GREAT DANE	45' TRAILER	1GRDM9026SMO41603	\$6,000.00
F473	2001	RANCO	32' FRAMELESS END DUMP TRAILER	1R9ESB5041L008375	\$6,500.00
F474	1996	Eastman	45' Highboy Trailer	1E1H5X288TRF19495	\$9,000.00
F477	1997	Haulin	LD36PAS 19x8' T/A Rolloff Trailer	5BHF83221V1101458	\$1,500.00
F478	1989	TRAIL KING	TK24 12 TON 19X8' T/A Equipment Trailer	1TKC02424KM064454	\$1,750.00
F479	1983	RAVEN	45' X 8' T/A Aluminum Hiboy Spread Axle	1R1F04625DE830376	\$4,000.00
F480	1988	GREAT DANE	42' X 8' T/A HIBOY	1GRDM8422JM025501	\$3,000.00
F481	1978	GREAT DANE	GPD-44 44' X 8' T/A Step Deck 128 Doghouse Trailer	M20413	\$15,000.00
F482	1991	FRUEHAUF	FLATBED SPREAD-AXLE	1H2PO4529MW002601	\$3,000.00
F483	2000	Reinke	STEPDECK TRAILER	4C6DC4820Y1110158	\$6,000.00
F484	2011	ZIM Built	8x13 Dump Trailer	CA1105528	\$10,000.00
F485	2005	Millerbilt	2-axle Tilt Bed Equipment Trailer 6066	1M9BE20285L516066	\$3,000.00
F486	2004	Towmaster	Model T-24 8.5' Flatbed Trailer w/ beavertail & tool carrier	4KNFT21244L163663	\$5,000.00
F487	2001	Towmaster	Model T-12 Flatbed Trailer	4KNFT16241L161684	\$3,000.00
F488		Water Tank Trailer	Water Tank Trailer with pump	F488	\$3,000.00
F489	2000	Towmaster	Model T-24 8.5' Flatbed Trailer	4KNET2121V162439	\$5,000.00

VEH# / EQUIP#	MODEL YEAR	MAKE	DESCRIPTION	VIN # / S/N	MARKET VALUE
F490	2011	ZIM Builit (JED)	Jetter Hose Reel Trailer mounted	JEDEC17B	\$10,000.00
F491	1998	WABASH	28' X 96" VAN TRAILER	1JJV281W7WL439258	\$3,000.00
F492	1996	WABASH	28' X 96" VAN TRAILER	1JJV281N0TL376720	\$3,000.00
F493	1997	Landoll	Model 66048 35 Ton 48'x8' Equipment Trailer	1LH660UH6V1008273	\$35,000.00
F494	1988	Lufkin	Model FL75 45' x 8' Hiboy	1L01B4520J1081790	\$5,000.00
F495	2000	CARSON	29' X 8' Gooseneck Equipment Trailer	4HXGN2927YC018599	\$7,500.00
F496	1985	AZTEC	48' Flatbed Trailer	1AZBR2A13F1016153	\$7,500.00
F497	1989	Fontaine	45' Flatbed Trailer	13N145206K1547950	\$7,500.00
F498	1989	Fontaine	45' Flatbed Trailer	13N145207L1548509	\$7,500.00
F499	1977	JACOBSON	GOOSENECK TRAILER	JTC7724	\$7,500.00
F504		MILLER	44D Welder	JK721933	\$1,000.00
F508		MAGNUM	MT4060STD LIGHT TOWER S/N 060895	60895	\$2,500.00
F510	1979	CLEVELAND	1FT. BOTTOM TRENCHER & SLIP FORM	202496	\$75,000.00
F511	1980	TRENCOR/JETCO	2FT. BOTTOM TRENCHER & SLIP FORM	7337-174	\$175,000.00
F512	1981	TRENCOR/JETCO	4-8FT BOTTOM TRENCHER & SLIP FORM	65A034345	\$500,000.00
F514		LINCOLN	SA250 Arc Welder for Ideco	U-1980503307	\$3,000.00
F516		WACKER	COMPACTOR #BS62Y	BS62Y	\$1,700.00
F517		WACKER	COMPACTOR #6VR220Y	6VR220Y	\$1,700.00
F519	1976	PETIBONE	PB 18 TON CRANE	676-A1-6198	\$30,000.00
F520		FAIRMONT	Fairmont Hydraulic Power Unit Model HGT-0801	75179	\$4,000.00
F521	1989	KOMATSU	GD615A Motor Grader	G61A-50014	\$25,000.00
F522		MILLER	MILLER LEGEND 200 LE W/ 16HP ONAN	JH306216	\$2,000.00
F523		MILLER	2 CYLINDER BOBCAT 225 G		\$2,000.00
F524	1969	CATERPILLER	TEST ENGINE 348TT ON TRAILER	32015187	\$35,000.00
F525		CATERPILLER	TRAILER - 4CYL. W/8X6 BERKLEY PUMP	10E02371	\$5,000.00
F527		TAYLOR DUNN	YARD CART		\$1,000.00
F530		WACKER	6" TOWABLE PUMP	W108090002	\$4,000.00
F531	2008	SULLAIR	750HAF Air Compressor	200806060080	\$42,000.00
F532		LINCOLN	WELDER	41980517432	\$5,000.00
F533		SELECT PIPE	LATHE MODEL #3040GOC	BE01	\$40,000.00
F534	1995	MAGNUM	NIGHT BUSTER LIGHTS 4000	1M9L51614SB101396	\$2,000.00
F535	1997	MAGNUM	NIGHT BUSTER LIGHTS 4000	1M9L51614VB101094	\$2,000.00
F537	1989	MAYCO	Concrete pumper Model C30HD VH4D - Ideco	F537890414	\$3,500.00
F540	1980	MAYCO	C-30 CONCRETE PUMP	C30HD	\$3,000.00
F541		MAYCO	CONCRETE PUMP TRAILER AZ	H30HD	\$3,000.00

VEH# / EQUIP#	MODEL YEAR	MAKE	DESCRIPTION	VIN # / SIN	MARKET VALUE
F543	1970	CATERPILLER	348 TEST ENGINE TRUCK MOUNT AZ	32014962	\$10,000.00
F547	1984	DETROIT	16V149 1200KW Diesel Test Engine 1700HP	CA952008	\$85,000.00
F548			225 KW Genset 12V71 Engine	45C77	\$5,000.00
F549		DETROIT	10 KW (360 #1)		\$1,000.00
F551		MILITARY	10KW GENERATOR		\$1,000.00
F553		MULTIQUIP	Portable Concrete Mixer	OBL	\$2,000.00
F554		MILLER	Big D4 Welder (360 #2) 44G	HK240668	\$4,000.00
F557	2008	PERKINS	6X5 GRAVEL PUMP (360 #2)	NL38738U007168S	\$18,000.00
F559		JOY	BOOSTER PUMP MODEL # LB11-3 (360 #1)	55912	\$5,000.00
F564	1989	CATERPILLER	RC60 FORKLIFT	2PJ00252	\$11,000.00
F565		MILLER	WILDCAT 350D -NEW WELDING TRUCK	JC606288	\$4,000.00
F566		AMERI	500 GAL. PORTABLE TANK TRAILER	05900322	\$2,000.00
F567		WATERDOG	500 Gal. Water Trailer - 500	17XFJ082911015216	\$5,000.00
F568		PERKINS	GRAVEL PUMP - (Jed-A)		\$18,000.00
F571		STAMFORD	100 KW GENSET	B960598864	\$7,500.00
F575		DETROIT	100 TON CASING JACKS 371		\$10,000.00
F576		JOHN DEERE	5X6 GRAVEL PUMP - 41DF01 (360 #1)	573532T	\$10,000.00
F577		PERKINS	2-71 3 X4 GRAVEL PUMP - (320)		\$18,000.00
F578		PERKINS	671 5X6 PUMP PTA11162 - (IDECO) mission pump	656620	\$18,000.00
F579		PERKINS	4,000 PSI WELL JETTER PUMP	2001F579	\$10,000.00
F581	2009	PERKINS	GRAVEL PUMP	NL38738U048882T	\$18,000.00
F582		COLEMAN	4000WT PORTABLE LIGHT	OBL	\$4,000.00
F585	1995	MILLER	BIG BLUE 400D WELDER	KF988860	\$5,000.00
F590		MULTIQUIP	7000 Watt Whisper Quiet GenSet Model DA7000SS	5392057	\$1,400.00
F593	1994	CATERPILLER	RC60 FORKLIFT FROM K&L - Ideco Rig	31A02301	\$13,000.00
F596		CHICAGO	PNEUMATIC AIR WINCH 4,000LBS.		\$2,000.00
F597		BERKLEY	6" PORTABLE PUMP	B6EXQBL	\$4,000.00
F598		DETROIT	16V71 DIESEL ENGINE	22166410	\$7,000.00
F599	1986	CATERPILLER	RC60 6000LB. FORKLIFT	31A00897	\$8,000.00
F600	1981	Challenger	360 #1 DRILL RIG	TR81332681D	\$2,400,000.00
F601	1973	TrailMobile	DOG HOUSE FOR 360 #1 RIG	TR110463	\$10,000.00
F602	1977	Challenger	128 DRILL RIG	T1805177D	\$800,000.00
F603	1979	Midway	DOG HOUSE FOR Jed-A DRILL RIG	M460826	\$10,000.00
F604	N/A	N/A	5 1/2" X 25' Drill Collars (3 each @ \$4,000)	NONE	\$12,000.00
F605	1981	Hobbs	DRILL PIPE TRAILER (128)	4022	\$10,000.00

VEH# / EQUIP#	MODEL YEAR	MAKE	DESCRIPTION	VIN # / SIN	MARKET VALUE
F606			EASTMAN KODAK SLOPE INDICATOR		\$3,200.00
F607	1964	Chevy	EARTHDRILL MODEL 36 (RATHOLE) RIG	S/N 161864 ; 4C683H167543	\$15,000.00
F608		Midway	SMALL DOG HOUSE TRAILER 6'X8'	88768	\$10,000.00
F609			M.C.O. OFFICE TRAILER	42666	\$3,000.00
F610	N/A	N/A	2 7/8" X 20' IF Drill Pipe (1500' @\$15)	NONE	\$22,500.00
F611	N/A	N/A	9 5/8" (10 1/2" DI12) X 42' Drill Pipe (2200' @ \$65/LF)	NONE	\$143,000.00
F611	N/A	N/A	9 5/8" (10 3/4" DI12) X 42' Drill Pipe (2400' @ \$65/LF)	NONE	\$156,000.00
F612	1956	Ideco	RAMBLER RIG (Allison 3-speed) 2 axel front	117869	\$800,000.00
F613	1976	Challenger	IDECO DOG HOUSE TRAILER	32017572	\$10,000.00
F614	N/A	N/A	15 1/2" x 28' Drill Collars (6 each @ \$18,000)	NONE	\$108,000.00
F616			Newer Sound Blankets (100 Panels @ \$600 ea)	NONE	\$60,000.00
F616			Used Sound Panels (164 Panels @ \$600 ea)	NONE	\$98,400.00
F616			40' Sound Panel Poles (24 @ \$400 ea)	NONE	\$9,600.00
F616			30' Sound Panel Poles (96 @ \$300 ea)	NONE	\$28,800.00
F617	1984	Challenger	360 #2 DRILL RIG	TR81871881D	\$2,400,000.00
F618	1979	Boyd	BOYD WATER TANK TRAILER	2611025	\$5,000.00
F619	N/A	N/A	13" x 28' Drill Collars (3 each @ \$15,000)	NONE	\$45,000.00
F621	1972	Challenger	DOGHOUSE NEW 360 #2	CH472663T	\$10,000.00
F623		Jed-A	TRAILER MOUNTED DRILL RIG	1072	\$700,000.00
F625	1993		8X12 ADVANCED DOGHOUSE Jed-A RIG	1A9VBJ627P12V7148	\$10,000.00
F626	N/A	N/A	10" x 30' Drill Collars (3 each @ \$8,000)	NONE	\$24,000.00
F626	N/A	N/A	10 3/4" x 30' Drill Collars (3 each @ \$10,000)	NONE	\$30,000.00
F627	N/A	N/A	6 5/8" x 30' Full Hole Drill Pipe (5,050' @ \$40/LF)	NONE	\$202,000.00
F627	N/A	N/A	6 5/8" x 30' IF Drill Pipe (1,100' @ \$40/LF)	NONE	\$44,000.00
F627	N/A	N/A	6 5/8" x 20' IF Drill Pipe (2,500' @ \$40/LF)	NONE	\$100,000.00
F628	1981	Challenger	320H Drill Rig	3T320H15064RE	\$1,700,000.00
F629		Wagner Moorehouse	Drill Rig T2-41 Serial # 122		\$500,000.00
F633		BUCYRUS ERIE	Cable Tool Rig 36-L	B410140088	\$50,000.00
F635	1981	GARDNER DENVER	2500 Drilling Rig w/ 18" H-T table & 74' - 140,000# mast	S/N 25DD-71	\$700,000.00
F636	1982	TrailMobile	Canilivered 8'x25' Doghouse for Gardner Denver	1PTF71TK2C6000172	\$20,000.00
F637	2012	Brocks	14'x7' Enclosed Doghouse Trailer	1B9VP1424CB632163	\$10,000.00
F638	2011	Brocks	14'x7' Enclosed Doghouse Trailer	1B9VP1424BB632243	\$10,000.00
Drill Pipe	N/A	N/A	6 1/2" X 25' Drill Collars (1 each @ \$5,000)	NONE	\$5,000.00
Drill Pipe	N/A	N/A	12" OD x 11" Square x 30' Drill Collar (1 each @ \$12,000)	NONE	\$12,000.00
Drill Pipe	N/A	N/A	11" x 30' Drill Collars (4 each @ \$11,000)	NONE	\$44,000.00

ZIM INDUSTRIES, INC
FRESH DIV.

VEH# / EQUIP#	MODEL YEAR	MAKE	DESCRIPTION	VIN # / S/N	MARKET VALUE
Drill Pipe	N/A	N/A	7 1/2" X 27' Drill Collars (3 each @ \$4,000)	NONE	\$12,000.00
Drill Pipe	N/A	N/A	6" X 30' Misc. Drill Collars (12 each @ \$2,000)	NONE	\$24,000.00
Drill Pipe	N/A	N/A	5 1/2" x 30' Zone Test Pipe (3,000' @ \$17/LF)	NONE	\$51,000.00
Drill Pipe	N/A	N/A	6 5/8" x 20' Full Hole Drill Pipe (320' @ \$40/LF)	NONE	\$12,800.00
Air Hammers	N/A	N/A	12" Air Hammers (5 each @ \$5,000)		\$25,000.00
Air Hammers	N/A	N/A	8" Air Hammers (2 each @ \$2,500)		\$5,000.00
Air Hammers	N/A	N/A	6" Air Hammers (2 each @ \$1,500)		\$3,000.00
Air Hammers	N/A	N/A	Misc. Air Hammer Bits (60 each @ \$1,000)		\$60,000.00
Misc	N/A	N/A	Large Hole Openers (36 each @ \$5,000)		\$180,000.00
Misc	N/A	N/A	Small Hole Openers (9 each @ \$4,000)		\$36,000.00
Misc	N/A	N/A	Rolling Stabilizers (10 each @ \$5,000)		\$50,000.00
Shop		W.F. Wells	Band Saw Model W-9	813644	\$2,000.00
Shop		UNIVERSAL	Glass Bead Machine	N/A	\$1,800.00
Shop		PIRANHA	Piranha Iron Worker Model P-3	P3-1227	\$11,500.00
Shop		TRENNJAEGER	Cold Saw Model LPC-1	374002/1	\$13,000.00
Shop		HOSSFELD	Universal Bender Model #2	B7981	\$2,500.00
Shop		ZIM	Zim Built Rotating Welding Table	N/A	\$2,000.00
Shop		KEC, Inc	Pipe Roller Model 3-60	102395	\$5,000.00
Shop		JET	Drill Press Model 420-F3	38131	\$1,000.00
Shop		BALDOR	Bench Grinder Model 1400W	771	\$500.00
Shop		MORANDO	Lathe Model PA-30	N/A	\$20,000.00
Shop		WEBB	Lathe Model WL-435	9-8103-72	\$10,000.00
Shop		COMET	Mill Machine Model 3KV	851595	\$4,000.00
Shop		WEBB	Drill Press Model 1100 D	82004	\$7,000.00
Shop		RIDGED	Pipe Threader Model 535	N/A	\$1,000.00
Shop		ZIM	HD Diesel Engine Stand	N/A	\$1,500.00
Shop		ZIM	Hydraulic Power Unit	N/A	\$1,500.00
Shop		ZIM	80 Ton Press	N/A	\$6,000.00
Shop		ZIM	Tube & Shaft Brush Machine	N/A	\$10,000.00
Shop		LINDE	Welder Model VI400 w/ Linde MIG35 Wire Feeder	Welder: D79D15355; Feeder: K	\$1,200.00
Shop		LINDE	Welder Model VI253 w/ Miller 60 Series Wire Feeder	Welder: B78C14045; Feeder K	\$500.00
Shop		MILLER	Welder Model CP200 w/ Miller Millermatic 10E Feeder	Welder: HE804679; Feeder HK	\$1,500.00
Shop		LINCOLN	Welder Model IdealArc DC600 w/ Lincoln LN-7 Feeder	Welder: U1960308411; Feeder	\$2,550.00
Shop		MILLER	Welder Model DialArc 250 AC/DC	HK247384	\$500.00
Shop		MILLER	Welder Model CP-300	KA901516	\$1,250.00

VEH# / EQUIP#	MODEL YEAR	MAKE	DESCRIPTION	VIN # / SIN	MARKET VALUE
Shop		MILLER	Feeder Model S-22A	KA883466	\$1,050.00
Shop		MILLER	TIG Welder Model DialArc HF w/ Miller Radiator-1 Cooler	JH209376	\$1,200.00
Shop		LINDE	TIG Welder Model UCC-305	C84G-47718	\$1,500.00
Shop		THERMAL DYNAMICS	Plasma Model PAK100	C72432A191301D	\$1,300.00
Shop		MILLER	Feeder Model S325	KD454147	\$1,250.00
Shop		MILLER	Feeder Model S325	KD544245	\$1,250.00
Shop		MILLER	Welder Model 252	N/A	\$2,200.00
Shop	2011	WHEELER	4" Pipe Threader Model 6790	N/A	\$3,000.00
Shop	2012	RIDGED	2" Pipe Threader Model 535	EBE154810112	\$2,000.00
Shop		SHUJIE	Double Trussed Storage Shelter 40'x80' Model 408021P		\$7,000.00
F701		EASYKLEEN	3000 PSI PRESSURE WASHER	4C268B	\$3,000.00
F702		EASYKLEEN	3000 PSI PRESSURE WASHER	4C269B	\$3,000.00
F704		LINCOLN	SA250 D3152 TOWABLE WELDER	U1980808419	\$2,500.00
F706	2008	CATERPILLER	C13 ACERT Test Engine	Eng s/h LGK 14201	\$50,000.00
F708		LAMB	POWER TONGS W/ DETROIT ENGINE		\$5,000.00
F709			STEAM CLEANER		\$1,000.00
F711		LINDE	305 WELDER		\$2,500.00
F712		LINDE	253 WELDER		\$2,500.00
F713		BALDOR	HD GRINDER		\$1,000.00
F715		CHICAGO ELECTRIC	40KW STATIONARY GENSET	A030820097	\$1,000.00
F716		KATO	LIGHT 20KW on Single Axle Trailer	LM324507	\$3,000.00
F718		MAGNUM	Model TG1/MMG 25 KVA GenSet	044019/043019	\$6,000.00
F720	2001	CASE	570XLT LOADER	JJGO2628990	\$27,000.00
F721	2000	CASE	580 SL 4x4 Backhoe Loader	JJG0276191	\$27,000.00
F723		COLEMAN	Rite-Lite Light Tower - (Jed-A)	Y06XJ55R109R-48	\$2,500.00
F724		LANDA	Steam Cleaner Model 5-3000		\$1,500.00
F726	2009	ZIM	Gravel Pump w/ Perkins Engine	U048883T	\$18,000.00
F727		LINCOLN	SA250 Welder w/ Perkins on Trailer	1134170	\$2,500.00
F728		COLEMAN	Rite-Lite Light Tower Model C2-130/4 - (320)	000629	\$2,500.00
F729	1985	MATHEY	Wireline Model #15EHLM	2398	\$4,000.00
F731	1999	I R/JOHN DEERE	Air Compressor (Trailer Mounted) P185WJD Eng#PE4045	PE 4045DF150F	\$5,000.00
F732		GARDNER DENVER	PS-172 Triplex Pump	F732BDI1005904	\$2,000.00
F736	1998	CASE	580L 4WD BACKHOE w/ 3740 hrs.	JJG0240865	\$27,000.00
F737			Blue Self-propelled Weed Sprayer		\$1,500.00
F738		MULTIQUIP	QP40TA Centrifugal Trash Pump	40TA-2186	\$1,000.00

VEH# / EQUIP#	MODEL YEAR	MAKE	DESCRIPTION	VIN # / SIN	MARKET VALUE
F740		MBW	R480H Tamper	4850070	\$1,000.00
F741		MILLER	Bobcat 225 Welder		\$1,000.00
F743	1995	CATERPILLER	R80 EAGLE PICHER FORKLIFT (360#1)	49A01995	\$19,000.00
F744		MULTIQUIP	Whisper Watt 40 GENERATOR DA7000SS	5437421	\$6,000.00
F745			WS 3000 GHS Pressure Washer	9605342	\$2,000.00
F746			HSP 20031 MCH Pressure Washer	22645	\$2,000.00
F749	1987	CATERPILLER	953LGP FRONT-END DOZER/LOADER	05Z00720	\$25,000.00
F752		MILLER	WELDER 200LE	JH193358	\$750.00
F753		MILLER	WELDER 200LE	JG066339	\$900.00
F754		MULTIQUIP	14.5 KW DCA-25SSIU PORT. GENERATOR	7104920	\$4,750.00
F755		ALLMAND	Night Lite Pro Tower	9811NLP97	\$2,000.00
F756		ALLMAND	Night Lite Pro Tower	P811NLP99	\$2,000.00
F757		COLEMAN	15KW GENERATOR (WHITE) -CK19V1580	190738	\$3,000.00
F758	1998	PACO/Conv. JOHN DEERE	5x6 Gravel Pump W/ JD 4045DF150	T04045D759987	\$13,000.00
F759		DITCH WITCH	3500 RIDE ON TRENCHER	3N0184	\$3,000.00
F761		MULTIQUIP	DA-7000 SS DIESEL 7KW GEN SET	5432047	\$3,500.00
F762		KUBATA	6V-3250Q-60 DIESEL 20 KW GEN SET	A131240-7	\$3,500.00
F767	1988	CATERPILLER	R50 DIESEL-2 Wheel Drive	31A00644	\$8,000.00
F768	2005	INGERSOL RAND	I-R 185 CFM AIR COMPRESSOR, P185 JD	352638UJAP231	\$10,000.00
F769	1999	JOHN DEERE	POWER TECH 4.5 MODEL 4045DF150B Gravel Pump	XPE4045D033669	\$10,000.00
F771	2004	BOSCH	HYDRAULIC HAMMER	6T0604012	\$2,000.00
F772	1995	CATERPILLER	R80 EAGLE PICHERLIFT ROUGH TERRAIN - (320 RIG)	49A03212	\$15,000.00
F773		DAEWOO	G25 E-3 FORKLIFT CX01005 5000 LBS	CX01005	\$9,000.00
F774	1995	KOMATSU	DRESSER DOZER TD-12C MADE IN POLAND	4230012P020699	\$40,000.00
F778		LINCOLN	#SA250 DE.152 CODE #8908 WELDER	A-1031101	\$2,000.00
F779	2000	CASE	570XLT LOADER	JJG0262521	\$20,000.00
F781	1988	HYSTER	12,000 FORKLIFT 195A	F006A02864J	\$15,000.00
F782	1979	CASE	850B DOZER	7077104	\$15,000.00
F783	1995	CATERPILLER	R80T 8000 LB ROUGH TERRAIN FORKLIFT	1KK00521	\$15,000.00
F784	1996	CATERPILLER	963B L GP CRAWLER LOADER	9BL01243	\$25,000.00
F786		MULTIQUIP	DF-027012 14.4 KW GENSET	8100452	\$5,000.00
F787	1975	TAYLOR	Y-30 30,000# FORKLIFT s/n S-44-11952	S-44-11952	\$19,000.00
F788		MILLER	MILLER LEGEND 200 WELDER	CANT FIND ONE	\$1,500.00
F789	2008	SULLAIR	900HAF 900CFM 175PSI	200805220087	\$55,000.00
F790	1999	DAEWOO	5000LB FORKLIFT MODEL #G25S-3	99-1418 LP	\$6,500.00

ZIM INDU: ES, INC
FRES DIV.

VEH# / EQUIP#	MODEL YEAR	MAKE	DESCRIPTION	VIN # / S/N	MARKET VALUE
F791	1998	JOHN DEERE	210LE 4X4 SKIP LOADER	T0210LE849736	\$12,000.00
F792		LINCOLN	SA-250 WELDER	A1151025	\$1,500.00
F793		LINCOLN	SA-250 WELDER	A1100855	\$1,500.00
F794		MILLER	BIG-40G WELDER	JE818504	\$1,500.00
F795		MAYCO	G30HD PORTABLE CONCRETE PUMP	890503	\$1,500.00
F796	2009	CATERPILLER	C18 700 HP TEST ENGINE on '88 LDCFT Trailer	TRAILER: 1LDD23207JB8111	\$75,000.00
F797	2009	CATERPILLER	C32 1100 HP TEST ENGINE on '88 LDCFT Trailer	TRAILER: 1LDD2320XJB8111	\$100,000.00
F799	2009		GOING TO BE ? On '88 LDCFT Trailer	TRAILER: 1LDD23204JB8111	\$5,000.00
F801	1992	JLG	40H 4x4 Telescopic Boom Lift	0300015646	\$4,500.00
F802	2006	Club Car	Electric Golf Cart	AQ0625-640835	\$1,000.00
F803	2007	Airburst	Airburst Unit w/ Davey Air Compressor on '07 RW Trailer	4RWUF14267N033946	\$40,000.00
F804		Totco	Totco Survey Tools 1 1/2 Degree (2)		\$5,000.00
F805		MULTIQUIP	DCA25USI 20 KW Port. GenSet s/n 8102776	8102776	\$4,000.00
F806		GORMAN RUPP	14DZCFIL 4-inch Portable Pump		\$2,000.00
F807	2006	TEREX	GENPAC OT25G 20kw towable generator	GIG2L002	\$8,000.00
F808	2006	LINCOLN	Electric Vantage 300 V1505 Welder mounted on F210	Trailer: 1L9U212136U184968	\$6,000.00
F809	2006	LINCOLN	Electric Vantage 300 V1505 Welder trailer mounted	Trailer: 1L9U212116U184872	\$6,000.00
F810	2006	LINCOLN	Electric Vantage 300 V1505 Welder trailer mounted	Trailer: 1L9U212176U184973	\$6,000.00
F811	2006	LINCOLN	Electric Vantage 300 V1505 Welder trailer mounted	Trailer: 1L9U212146U184977	\$6,000.00
F812	2006	GENIE	TML 4000-N Light Tower trailer mounted	Trailer: 5D8LC14176R000637	\$4,000.00
F814	2006	SULLAIR	750HAF-DTQ Air Compressor 150PSI	200608250035	\$40,000.00
F815	2003	CATERPILLER	GP-25 3,700LB FORKLIFT S/N AT17C01865	AT17C018665	\$10,000.00
F817	2004	INGERSOL RAND	Model G70 Generator, 70-KVA; 74 KW @ 1800 RPM	007004002871	\$12,000.00
F818	2001	CATERPILLER	CAT Eagle Picher RT604WD 4x4 Forklift Rough Terrain	4RT01228	\$15,000.00
F819	2002	MILLER	Miller Bobcat 250NT Welder	LE257588	\$3,000.00
F820		LANDA	Pressure Washer Model PGHW5-30224E	P1204-96053	\$3,000.00
F821	2006	SULLAIR	900 H-DTQ Air Compressor 150PSI	200608230024	\$40,000.00
F822	2006	SULLAIR	750HAF Air Compressor	200608100046	\$40,000.00
F824		ACS FRAC TANK	500 BBL Frac Tank s/n WM2	WM2	\$10,000.00
F825		ACS FRAC TANK	500 BBL Frac Tank s/n 1161	1161	\$10,000.00
F826	2013	CATERPILLER	C15 HP TEST ENGINE on '13 Zim Built Trailer	Trailer: CA1140558; CAT: LDN	\$100,000.00
F828	2011	SULLAIR	375HH 80-200PSI Air Compressor	201106210070	\$20,000.00
F829	2006	CASE	580M 4WD BACKHOE 65-74 HP	N6C401419	\$35,000.00
F830	1990	CATERPILLER	R80 ROUGH TERRAIN FORKLIFT	049A01522	\$15,000.00
F831	1990	CATERPILLER	R80 ROUGH TERRAIN FORKLIFT	049A01519	\$15,000.00

VEH# / EQUIP#	MODEL YEAR	MAKE	DESCRIPTION	VIN # / S/N	MARKET VALUE
F832	2001	CATERPILLER	Eagle Picher RT80 Rough Terrain 4x4 Forklift	4RT01180	\$20,000.00
F833	2008	JLG	30AM Electric Scissorlift	900029673	\$2,000.00
F834	2006	CASE	580M 4WD BACKHOE 65-74 HP	N6C400407	\$35,000.00
F835	2005	SULLAIR	750HAFDTQ 150 PSI Air Compressor	004151135	\$50,000.00
F836	2006	SULLAIR	750HAFDTQ 150 PSI Air Compressor	200608250051	\$50,000.00
F837		AIRMAN	20 KW PORTABLE GENSET SDG25S	1233A30471	\$6,000.00
F838	2006	CASE	580M 4WD BACKHOE	N6C401405	\$40,000.00
F839	2006	CASE	580M Series 2 4WD BACKHOE	N6C401289	\$40,000.00
F840		PT6LT	Portable Water Pump w/ Lambardini 3 cyl.	717501388	\$3,000.00
F841		JOHN TATE	T91211-4TCC 4" Portable Water Pump w/ Deutz F2L912	34711	\$3,000.00
F842	2014	ZIM	Gravel Pump w/ Perkins 4-Cyl; Model 1104DE-44TA	F842 / Eng. s/n NJ38958U117	\$15,000.00
F843	2007	KOMATSU	FG25T-16 5000 LB GAS/LP FORKLIFT	213525A	\$15,000.00
F844	2007	SULLAIR	900HAF Air Compressor	200708310126	\$65,000.00
F845	2009	MAGNUM PRO	MLT3060 Towable Light Tower	0902792	\$5,000.00
F846	1997	MAGNUM	4060IMH Portable Light Tower	97270	\$3,000.00
F847	2007	ATLAS COPCO	350-395 CFM Air Compressor Model XAS375JD6	4500B13157R020325	\$20,000.00
F848	2007	CASE	580M 4WD BACKHOE	N7C424300	\$40,000.00
F849	2007	CASE	586G 4WD FORKLIFT 6000#	JJGO294600	\$30,000.00
F850	2008	TEREX	RL4000 Light Tower	RL408-118	\$5,000.00
F851	2007	TEREX	RL4000 Light Tower	RL407-1197	\$5,000.00
F852	2007	CASE	586G 4WD FORKLIFT 6000#	JJGO294626	\$30,000.00
F853	2008	ATLAS COPCO	850-900 CFM Air Compressor Model XAHS900CD6	AIP668809	\$40,000.00
F854		KUBATA	GL11000USA 11 KW GEN SET DIESEL	758400	\$7,500.00
F855	2006	GENIE	TML 4000-N Light Tower trailer mounted	Trailer: 5D8LC14166R000113	\$4,000.00
F856	1995	CATERPILLER	RC60 6000# ROUGH TERRAIN FORKLIFT	31A02384	\$10,000.00
F857	2006	MAGNUM	500 GAL PORT WATER TANK MWT500	5AJWS16136B000159	\$3,000.00
F858	2009	CATERPILLER	GC45K LP FORKLIFT	AT87A30625	\$10,000.00
F859		DOOSAN	D1110S FORKLIFT	LL00101	\$40,000.00
F860	2007	MITSUBISHI	FG40K LP 8000# FORKLIFT	F595295	\$20,000.00
F861	2007	SULLAIR	900HDTQCA Air Compressor	Trailer: 4W0AS32497MA12081	\$60,000.00
F862	2007	SULLAIR	900HDTQCA Air Compressor	Trailer: 4W0AS32417V319063	\$60,000.00
F863		WORKSAFE FRAC TANK	500 BBL Frac Tank s/n 238907	SN238907	\$10,000.00
F864		WORKSAFE FRAC TANK	500 BBL Frac Tank s/n 238683	SN238683	\$10,000.00
F865		WORKSAFE FRAC TANK	500 BBL Frac Tank s/n 238599	SN238599	\$10,000.00
F866	2007	TOYOTA	FORKLIFT MODEL 7FDU35 8000#	7FDKU4062595	\$20,000.00

VEH# / EQUIP#	MODEL YEAR	MAKE	DESCRIPTION	VIN # / S/N	MARKET VALUE
F867	2010	JOHN DEERE	310J 4X4 LOADER BACKHOE	1T0310JSCA0190939	\$40,000.00
F868	2007	CASE	580MT 4WD BACKHOE LOADER	N7C424021	\$40,000.00
F869	2011	ALLMAND	Night-Lite Pro Light Tower	2161PR011	\$2,000.00
F870	2010	WACKER	LTN6L Light Tower	5SFLN0516AN003047	\$2,000.00
F871		WACKER NEUSON	PT6LT 6" Water Pump	5XFPB0519CM000114	\$7,500.00
F872		WACKER NEUSON	PT6LT 6" Water Pump	5XFPB051XCM000106	\$7,500.00
F873		WACKER NEUSON	PT6LT 6" Water Pump	5XFPB0517CM000113	\$7,500.00
F874		INGERSOL RAND	22 Kva Generator	646029	\$5,000.00
F875		MULTIQUIP	DCA10SPX 10KW Port. GenSet s/n 8710008	8710008	\$8,000.00
F876	2015	ZIM	Zim Built Gravel Pump w/ Perkins 4-Cyl Engine; Model 1104DE-44TA	NJ38958U117307V	\$25,000.00
F877	2015	ZIM	Zim Built Gravel Pump w/ Perkins 4-Cyl Engine; Model 1104DE-44TA	NJ38958U117305V	\$25,000.00
F878	2015	ZIM	Zim Built Gravel Pump w/ Perkins 4-Cyl Engine; Model 1104DE-44TA	NJ38958U103444V	\$25,000.00
F879		MULTIQUIP	DCA10SPX 10KW Port. GenSet s/n 8710022	8710022	\$8,000.00
F880	2011	MAGNUM	500 GAL PORT WATER TANK MWT500	1105360	\$3,000.00
F881	2008	CASE	580SM SERIES 3 4WD BACKHOE LOADER	N8C505384	\$35,000.00
F882	2010	SULLIVAN	375 CFM Air Compressor D375PDXJDSB	71893	\$15,000.00
F883	2012	MAGNUM	MLT3060K Towable Light Tower	1212237	\$3,500.00
F884	2012	MAGNUM	MLT3060K Towable Light Tower	1211161	\$3,500.00
F885	2012	MAGNUM	MLT3060K Towable Light Tower	1211156	\$3,500.00
F886	2010	KARCHER-SHARK	Pressure Washer Model SSG-603537E	1L9FA1019AC041047	\$4,000.00
F887	2016	MILLER	Miller Electric Welder Trailblazer 325 for F234	MF230266R	\$4,000.00
F888	2005	CATERPILLER	C-18 Test Engine on 1988 Ziemman Trailer	1ZCE29A23JZP14776	\$50,000.00
F889			POWER TONGS (6) Sets for Drill Rigs		\$50,000.00
F890	2011	GENIE	GS2632 26' Electri Scissor Lift	GS3211A-96115	\$7,500.00
F891	2010	MI-T-M	HS-3505 200 Gal Tank w/ Honda Engine	1C9FA0811AC673104	\$5,000.00

Zim Industries, Inc., dba Bakersfie Vell & Pump Co.Equipment List

Equip #	Model Year	Make	Model	VIN/Serial #	Market Value
B107	2006	Ford	F150 Crew Cab	1FTPW12536KC46646	20,000.00
B108	2008	GMC	Sierra 3500 Std Cab	1GDJC34698E212840	39,000.00
B118	2006	GMC	Sierra 3500 Ext Cab	1GDJK39D36E243542	45,000.00
B124	2008	Chevrolet	Silverado 2500 4X4 Crew Cab	1GCHK23698F174263	30,000.00
B140	2009	Chevrolet	Silverado 3500 Std Cab	1GBJC746X9E124865	-
B141	2007	GMC	C4500 Std Cab	1GDE4C1227F405341	30,000.00
B142	2009	GMC	Sierra 3500 Crew Cab	1GDJC73639F110311	50,000.00
B143	2011	Dodge	Ram 3500 Std Cab	3D6WF4EL4BG507138	50,000.00
B144	2011	Dodge	Ram 2500 Crew Cab	3D7UT2CL3BG562232	55,000.00
B145	2011	Dodge	Ram 5500 Crew Cab	3D6WA7CLXBG565130	55,000.00
B146	2011	Dodge	Ram 3500 Std Cab	3D6WF4EL2BG594392	40,000.00
B147	2011	Chevrolet	Silverado 3500 Std Cab	1GB3CZCL2BF237947	40,000.00
B148	2011	Chevrolet	Silverado 3500 Crew Cab	1GB4KZCL7BF264486	50,000.00
B149	2012	Chevrolet	Silverado 3500 Std Cab	1GB3CZCL7CF190819	40,000.00
B150	2012	Chevrolet	Silverado 2500 4X4 Crew Cab	1GC1KYC84CF191762	60,000.00
B151	2012	Chevrolet	Silverado 1500 Ext Cab	1GCRCREA4CZ217653	30,000.00
B152	2011	Chevrolet	Silverado 2500 Crew Cab	1GC1CXC84BF118378	42,000.00
B153	2012	Dodge	Ram 3500 Std Cab	3C7WDTBLXCG109432	45,000.00
B154	2013	Chevrolet	Silverado 3500 Std Cab	1GB3CZC83DF149889	45,000.00
B155	2013	Chevrolet	Silverado 3500 Std Cab	1GB3CZC89DF167636	45,000.00
B156	2013	GMC	Sierra 3500 Crew Cab	1GD422C81DF192651	55,000.00
B157	2013	GMC	Sierra 3500 Crew Cab	1GD422C87DF167379	55,000.00
B158	2013	GMC	Sierra 1500 Ext Cab	1GTR1UEA0DZ108410	30,000.00
B159	2014	Ford	F350 4X4 Crew Cab	1FT8W3BT6EEA15784	61,000.00
B160	2014	Chevrolet	Silverado 3500 Std Cab	1GB3KZC85EF111780	50,000.00
B161	2014	Chevrolet	Silverado 1500 Std Cab	1GCNCPEH7E2215141	25,000.00
B162	2014	Chevrolet	Silverado 3500 Crew Cab	1GB4CZC84EF156002	50,000.00
B163	2014	Ford	F250 4X4 Crew Cab	1FT7W2BT9EEB64437	60,000.00
B164	2015	Ford	F550 Crew Cab	1FD0W5HT8FEC24618	60,000.00
B165	2015	Chevrolet	Silverado 3500 Std Cab	1GB3CYC83FF563851	45,000.00
B166	2015	Dodge	Ram 3500 Crew Cab	3C7WRTCL4FG575720	55,000.00
B167	2015	Chevrolet	Silverado 3500 Std Cab	1GB3CYC88FF593816	45,000.00
B168	2016	Ford	F550 4X4 Crew Cab	1FD0W5HT9GEA73547	62,000.00
B169	2016	Ford	F550 4X4 Crew Cab	1FD0W5HT7GEA73546	62,000.00
B170	2016	Ford	F350 4X4 Crew Cab	1FT8W3BT6GEA28439	65,000.00
B203	1994	Peterbilt	60 Ton Pump Rig	1XPAD69X3RN358025	220,000.00
B211	2002	Freightliner	50 Ton Pump Rig	1FVHBGAS62HK09306	168,000.00
B213	1975	International	7500 Auger Rig	10675EHA21037	25,000.00
B215	2003	International	4300 Flat Bed Liftgate	1HTMMAAM13H563256	20,000.00
B216	1980	International	466 DT Auger Rig	AA185KHA14302	30,000.00

Zim Industries, Inc., dba Bakersfie Vell & Pump Co.Equipment List

Equip #	Model Year	Make	Model	VIN/Serial #	Market Value
B218	1997	Freightliner	FL70 Water Truck	1FUWHLBA9VL619642	10,000.00
B225	1990	Chevrolet	Topkick Truck w/1976 Speedstar Cable Tool Rig	1GBJ7H1J8LJ201282	35,000.00
B228	1999	Kenworth	Cab & Chassis	1NKWLT9X7XR826822	-
B230	2000	Freightliner	FL80 Semco Rig 30 Ton	1FVXJLBBXYDH29761	200,000.00
B231	1999	Freightliner	FL80 Semco Rig 30 Ton	1FVXJBB1XHF47471	200,000.00
B232	1999	Freightliner	FL80 Semco Rig 25 Ton	1FVXJLBB0WH978850	170,000.00
B234	2005	Ford	F650 XL Flat Bed	3FRNF65E45V117013	20,000.00
B235	2001	International	4700 w/ National 500 D Crane #1 (SN 32611)	1HTSCABP41H343271	60,000.00
B236	2001	International	4700 w/ National 500 D Crane #2 (SN 31566)	1HTSCABP61H327766	60,000.00
B237	2001	International	4700 w/ National 500 D Crane #3 (SN 32452)	1HTSCABP31H337512	60,000.00
B238	2008	Freightliner	FL 70 25 Ton Pump Rig	1FVABTAK52HJ45012	90,000.00
B239	2007	Freightliner	M2 Business Class	1FVACXDC87HX98899	15,000.00
B241	2011	International	7600 T/A Flatbed Truck	1HTWXSHR5BJ326218	65,000.00
B242	2011	International	7600 Workstar T/A Flatbed Truck	1HTWXSHR3BJ326220	65,000.00
B243	2007	Ford	F750 XL S/A w/ Terex 17 Ton Crane	3FRXF75G07V479441	65,000.00
B244	2010	International	4300 SBA DuraStar Truck	1HTMMAAM5AH162015	35,000.00
B245	2010	International	4300 SBA DuraStar Truck	1HTMMAAM2AH161825	35,000.00
B246	2016	Freightliner	114SD w/ R36 Hunke Pump Rig	3ALHG3DV2GDHC0720	365,000.00
B247			Reserved for Hunke		
B248	2008	International	4200- 2000 Gallon Water Truck	1HTMPAFP28H544829	20,000.00
B249	1998	International	10 Ton Smeal Rig	1HTSDAAN2WH594780	
B301		Victor	Lathe	918014	15,000.00
B302		Ponar	Wrockaw Lathe	40818	15,000.00
B303		American	Pacemaker Lathe	5778	15,000.00
B304		National	Lathe	12081	10,000.00
B306		Ex-Cell-O	Mill	S34237	-
B307		Universal	Glass Bead Machine	02688	-
B308		Cincinnati	Bench Grinder (Machine Shop)	N60663	500.00
B309		Cincinnati	Bench Grinder (Welding Shop)	321581	500.00
B310		Shopmade	Big Hydraulic Press	BP100	5,000.00
B311		Hydraulic	Press (In Welding Shop)	45833	5,000.00
B312		Pirahna	Sheer Machine	2957	5,000.00
B313		Mercury	Chop Saw	JM-872	500.00
B314		Lincoln	Ideal Arc R35 w/Miller R115 Feeder	AC401506	1,500.00
B316		Lincoln	Ideal Arc 250 C-Box	AC127864	1,500.00
B317		Miller	Dimension 452	KJ 047227	1,500.00
B318		Miller	CP 250TS	JF8525	1,500.00
B319		Miller	CP 300	JE818835	1,500.00
B320		Pak	Master 75XL Plus Plasma Cutter	02450267	2,500.00

Zim Industries, Inc., dba Bakersfield Well & Pump Co. Equipment List

Equip #	Model Year	Make	Model	VIN/Serial #	Market Value
B321		Pak	Master SM Plasma Cutter	00496747	-
B322		Walker Turner	Drill Press	13-1554	500.00
B323		Unknown	Big Drill Press	422	2,500.00
B324		Hyd-Mech	s-20P Band Saw	71001297	2,500.00
B325		Hem Inc.	Band Saw	231385	-
B326		Thred O Matic	Roller	7126	-
B327		Lincoln	Ideal Arc 250 (Rig)	AC341112	-
B328		Landa	Pressure Washer	161016	1,500.00
B329		Miller	R115 Wire Feeder	LC261396	1,500.00
B330		Miller	Wire Feeder	KE636109	1,500.00
B331		Miller	Wire Feeder #2	LF096500	1,500.00
B332		Mig	Welder	LH331331V	-
B333		Coffing	Little Mule Elec Chain Hoist-4K lb	JM0611TY	2,000.00
B334		Champion	Rotorchamp RC-10 Model ELA99D	D070144	6,000.00
B335		Enco	100-1527 Mill	490381	5,500.00
B336	2010	Thermal Dynamics	Cutmaster 82 Plasma Cutter	05661537	2,000.00
B337		E Z GO	Golf Cart	1027392	1,600.00
B338		Yamaha	Golf Cart	JR1-402229	500.00
B339		Yamaha	Golf Cart	JR1-504218	500.00
B340		Lincoln	Ranger 25 GXT Welder	U106031107	2,500.00
B341	2010	Thermal Dynamics	Cutmaster 42 Plasma Cutter	010231881A19X2703	1,200.00
B342		Miller	Trailblazer 275 DC Welder	MB230036H	4,000.00
B343		Snap on	Tool Scanner	2-18240206312F08AF040C	3,750.00
B344		Miller	Trailblazer 302 Welder	MB230590H	4,500.00
B345		Pipe Wrenches	Lot Misc. Pipe Wrenches	None	1,000.00
B346		Shopmade	Shaft Wire Brush Cleaner	None	1,500.00
B347		H&M Pipe Bevelers	Pipe Bevelers	None	1,500.00
B348		Hydraulic Push Cylin	Hydraulic Jacks	None	1,000.00
B349		7" CSG Elevators		None	3,500.00
B350		2 Wilson 20" SL Elevators		None	1,000.00
B351		Rauch	616 Spinning Tool	None	15,000.00
B352	2005	BTI	Hydraulic Hammer		3,000.00
B353	2014	Miller	Bobcat 250 Welder	ME101497R	4,000.00
B354	2014	Miller	Bobcat 250 Welder	ME130959R	4,000.00
B355	2014	Miller	Trailblazer 325	ME400967R	6,000.00
B356	2015	Brock's	22' Flatbed	None	8,000.00
B357	2015	Brock's	22' Flatbed	None	8,000.00
B358	2015	Brock's	Truck Bed	None	8,000.00
B359	2015	Bobcat	LT313 Trencher	045411836	6,500.00
B360	2015	Miller	Dialarc 250	MF062076V	2,500.00

Zim Industries, Inc., dba Bakersfield Well & Pump Co. Equipment List

Equip #	Model Year	Make	Model	VIN/Serial #	Market Value
B361	2015	Miller	XMT-350 Welding Machine	MF214081U	4,300.00
B362	2015	Brock's	Truck Bed	None	8,000.00
B363	2015	Brock's	Truck Bed	None	8,000.00
B401	1975	Midway	Drill Rig	564817	750,000.00
B402		Shopmade	Sound Blanket Panels (New, 100)	None	100,000.00
B403	1980	Challenger	Drill Rig 320-#1	32015064	750,000.00
B404	1957	Howard Turner	Rig	OR1003729T	600,000.00
B405	1978	Challenger	Drill Rig 320-3	TR78705T778-D	750,000.00
B406		Jed-A	Drill Rig	188912V90497	400,000.00
B407			8800' 7" Drill Pipe \$40/ft	None	352,000.00
B408			11" Drill Collars (10each @ \$10000)	None	110,000.00
B409		Challenger	Drill Rig 320-2	TR808341180D	750,000.00
B412		Shopmade	Turntable for Big Holes & 13' Substructure	Eng # 1692	5,000.00
B413		Scott	#2 Auger Rig	HL6635S140818	5,000.00
B414		King Oil	5 - 10" hexagon kellys; 3 - 7.5 king swivels	None	90,000.00
B415		Howard Turner	Rotary Table on Jed A	None	20,000.00
B417		Shopmade	Mud Tub Pump	None	2,500.00
B418		Shopmade	Mud Pits	None	3,500.00
B419			71 Joints of 6 5/8" Drill Pipe	None	35,000.00
B420	N/A	Tube Tech	2,369' 6.625" OD Drill Pipe	None	
B503	2000	Freightliner	w/Crane	1FVNFXYB6YPF53040	45,000.00
B504	1996	Freightliner	Tractor Truck	1FUPDDYBXTP577719	20,000.00
B508	1996	International	Tractor Truck	2HSFHALR4TC048317	-
B513	2001	Freightliner	Tractor Truck	1FUJAHAS91PH09613	25,000.00
B516	1997	Western Star	Truck Crane	2WKPDDCH2VK945924	60,000.00
B517	2013	International	Prostar 113 Tractor Truck	1HSDHSJR3DJ147665	41,000.00
B518	2013	International	Prostar 113 Tractor Truck	1HSDHSJR8DJ149881	41,000.00
B519	2013	International	Prostar 113 Tractor Truck	1HSDHSJR0DJ147638	41,000.00
B601	1961	Transport	Gooseneck Trailer	7570	5,000.00
B603	1982	Jacob	Car Trailer	JTC8270	3,000.00
B604	1987	Scotsman	Construction Trailer	CA872S0080450	2,000.00
B605	1980	Oxbow	Gooseneck Trailer	ABT54680	5,000.00
B606	1982	SPCNS	Gooseneck Trailer	CA758888	5,000.00
B609	1973	Tempe	Float (320-pipe trailer)	28737	5,000.00
B610	1979	Dorsey	47' Flatbed Trailer	142959	5,000.00
B612		SPCNS	Small Box Trailer	4HXSU0810YC017370	3,000.00
B614	1966	Brown	Drill Pipe 1966 320-3	TCE976	5,000.00
B615	1973	Perst	Car Trailer	73066CC	5,000.00
B616	1971	Fruehauf	H.T. Drill Pipe	FRN449525	5,000.00
B617	1979	Aztec	Trailer	4879	5,000.00

Zim Industries, Inc., dba Bakersfield Well & Pump Co. Equipment List

Equip #	Model Year	Make	Model	VIN/Serial #	Market Value
B618	1980	Hobbs	35' FB MIDWAY PIPE	FAT398817	5,000.00
B619	1982	Eload	Blue Box Trailer	370	5,000.00
B620	1985	Trailenze	Lobed trailer	1DA72CX6XFM008029	20,000.00
B621	1988	Wilson	32' End Dump Trailer	WEI88EDFS01026070	15,000.00
B622	1989	Great	Dane 45' Trailer	1GRDM9022KM034342	5,000.00
B624		Shopmade	Dog House	B624022714	1,500.00
B625	1982	Lufkin	Trailer Endump	1L01C2722C1060649	7,500.00
B626	1976	Hobbs	Flatbed	FHX665503	5,000.00
B627	1976	Hobbs	3 Axel Filter System	FHW638808	15,000.00
B628	1979	Dorsey	47' Flatbed Trailer	142948	5,000.00
B629	1982	Carrier	CLTRL car trailer	CTU822768	3,000.00
B631	1991	Utility	Split Axle Flatbed Trailer	1UYFS2454MA607302	5,000.00
B633	1987	Zieman	Gooseneck	1ZCE32E29HZP13124	5,000.00
B635	1985	Trailenze	Lobed trailer	1DA72C343FM007986	20,000.00
B636	1970	Trailer	Mobil 42' Flat Trailer	F28402	5,000.00
B637	1962	Tradewinds	Jed-A Pipe Trailer	CA870645	5,000.00
B638	1978	Merit	Tank 8000 gal.	CA941178	5,000.00
B640	1975	Zieman	20' Drill Pipe Trailer Off Road	Z217995	1,000.00
B641	1976	SPCNS	Car Trailer	CAL179501	3,000.00
B642	1988	Moveall	Lobed trailer w/ hydraulic lift	1W13AN299J3304145	20,000.00
B643		SPCNS	26' Gooseneck Trailer	CA986419	15,000.00
B645	1995	Great Dane	Flatbed Trailer	1GRDM9027SM041609	10,000.00
B646	1995	Great Dane	Flatbed Trailer	1GRDM9023SM041607	10,000.00
B647	1999	Reinke	47' Split Axel Trailer	4C6DC4821X1090081	12,000.00
B648	1979	Boyd	Water Tank Trailer	2611025	3,000.00
B649		Shopmade	Trailer	B649500	500.00
B651		Shopmade	Enclosed Construction Trailer	D209512	1,500.00
B652		Shopmade	Poly Tank Trailer	B6524111	1,500.00
B653	2008	Aztex	Utility Trailer	4ZBSU10838F002173	500.00
B654	2000	Towmaster	Utility Trailer	4KNFT1625YL162689	5,000.00
B656	2012	Brooks	25' Gooseneck Trailer	1B9FP2520CB632377	17,500.00
B657	2013	Brooks	14' Dump Trailer	1B9DS1425DB632006	10,000.00
B658	2013	Brooks	7' x 20' Tilt Trailer	1B9CP2023EB632063	8,000.00
B659	2015	Brooks	21' Gooseneck Trailer	1B9FS212XFB632086	14,000.00
B660	2015	Brooks	7' x 20' Tilt Trailer	1B9CS2022FB632054	8,500.00
B661	2015	Brooks	8' x 18' Gooseneck Trailer	1B9FP1820FB632096	20,000.00
B701	1985	Utility	320-3 Doghouse w/100 kw SDMO Gen Set	3797	15,000.00
B702	1973	Vulcan	320-1 Doghouse	VT237573	20,000.00
B703	1997	Ing Rand	525 Air Compressor	130179	15,000.00
B705		Ing Rand	750 CFM Compressor - 300 PSI CAT	B705108135	30,000.00

Zim Industries, Inc., dba Bakersfield Well & Pump Co. Equipment List

Equip #	Model Year	Make	Model	VIN/Serial #	Market Value
B706	1944		Diesel Fuel Trailer (325 gal) Green	TDR362660	1,000.00
B707	2005	Ing Rand	Air Compressor, Diesel, 675 CFM, Used	4FVCCREB950355410	40,000.00
B709			Fifth Wheel Dolly	Yard	1,000.00
B710		Ing Rand	Compressor 185 CFM	180026	5,000.00
B713		Doghhouse	Doghhouse HT Rig	9215	15,000.00
B716	1966	Madder	Doghhouse-Midway	1559	25,000.00
B720	1982	Jed-A	Doghhouse Trailer	12820089RE	15,000.00
B721	2007	Sullair	Air Compressor 900 HAF	200708170069PR631	45,000.00
B722		Lite	Flashing Lite Trailer Gen Set	2133	1,000.00
B723		Brown	Doghhouse 320-2	S726647	15,000.00
B725	2004	Sullair	Air Compressor 900H	004145648	40,000.00
B726	2009	Lincoln	300 Welding Trailer	CA1073938	1,000.00
B728		Lincoln	Box Welding Trailer	4HXSU0810YC017370	2,000.00
B729		Lincoln	Diesel 250 Welder	01930207375	-
B731		Lincoln	250 Welder	120021	-
B736	1990	Zieman	Drag Trailer	1ZCS14S12LZP16469	1,000.00
B737	1992	Need info	KINGW-Spool	1K9UC1216NC164094	-
B739	1978	SPCNS	Construction Box Trailer	CAL203204	1,000.00
B745		Wacker	67KW Generator Set (HT DOGHOUSE)	PE4045T643348	8,500.00
B747	2005	Ing Rand	1170 CFM Air Compressor	4FVCHB0B26U370588	65,000.00
B748	2000	Tulsa Rig Iron	Mud Tank/Shaker	1T9B22422Y1649003	-
B749	2006	SPCNS	Ingersoll Rand Generator	CA993057	15,000.00
B750	2006	Ing Rand	HP750DWCU Air Compressor	4FVCCBEB16U367469	55,000.00
B751	2006	Sullair	750 CFM Compressor	200608240100	50,000.00
B752	2002	Sullair	900 XH Air Compressor	004-139096	65,000.00
B753	2007	Ing Rand	HP915IQ Air Compressor	4FVCCBGB18U395577	65,000.00
B754	2007	Sullair	900 HAF Air Compressor	200708310121	55,000.00
B755	2007	Sullair	900 HAF Air Compressor	200707260099	70,000.00
B756		MQ Power	36 KW Gen Set	140808B756	15,000.00
B757		Worksafe	Frac Tank	238502	4,500.00
B758		Worksafe	Frac Tank	238651	6,000.00
B759		Worksafe	Frac Tank	238568	6,000.00
B760	2010	MI-T-M	Trailer Mounted Pressure Washer	1C9FA0818BC673070	5,000.00
B761	2002	Ing Rand	XHP 1070 CAT 2 Air Compressor	4FVCCBOBXZU329670	82,000.00
B762	2006	Ing Rand	HP675WCU Air Compressor	4FVCCBEB36U371734	40,000.00
B804		Deutz	Portable Pump	None	-
B805		Perkins	Gravel Pump #2 on Trailer 353	605128T	10,000.00
B807		John Deere	Gravel Pump #6 6 cyld.	740582	10,000.00
B808		Wacker	Pump 320	None	1,200.00
B809		Goulds	Sump Pump #1	None	1,500.00

Zim Industries, Inc., dba Bakersfield Well & Pump Co. Equipment List

Equip #	Model Year	Make	Model	VIN/Serial #	Market Value
B810		Goulds	Sump Pump #2	None	1,500.00
B811		Goulds	Sump Pump #3	None	1,500.00
B812		Detroit	6067GK60 Test Engine	789250	20,000.00
B813		Briggs & Stratton	Port Pump	None	500.00
B815		Mayco	Concrete Pump	M147921	1,000.00
B818		Perkins	371 Gravel Pump #1 - Midway	4607809	10,000.00
B819		John Deere	Gravel Pump #4 4 cylid	4272124	10,000.00
B820		Barns	Sump Pump	None	1,500.00
B821		Wacker	Compactor	None	1,000.00
B822		Wacker	Pump HT	None	1,200.00
B824		Shopmade	Test Engine Trailer	34758988	10,000.00
B827			4 X 4 Electric Trash Pump	None	-
B828		Detroit	Gravel Pump #3 HT 5x6 w/ 25993	26907	5,000.00
B830		MQ Power	180 KW Gen. Set	4AG3U1724YC032809	40,000.00
B832	1968	Brown	Hydraulic Power pack	S684204C	5,000.00
B833		Bluestar	6000 Welder	KK212641	1,000.00
B835	2009	Caterpillar	C-18 Test Engine	59258910	120,000.00
B836	1998	Honda	Recon 4 Wheeler	478TE211XWA100278	500.00
B839		Detroit	#5 16V-71 (682 BHP)		5,000.00
B842		Cummins	M-11 Test Engine	34811222	10,000.00
B843		Perkins/Cat	Gravel Pump #5	Z217995	10,000.00
B844	1999	SAF-T-TOW	Test Engine C32 w/trailer	1S9F32429XF496295	195,000.00
B845	1988	Zieman	Test Engine Trailer MTU 2000	1ZCE29A23JZP14776	200,000.00
B846	N/A	Detroit	2-71 2 x 3 Pump	None	750.00
B847		Shindaiwa	70KW Gen Set (PTS #2) Midway Dog	906340	10,000.00
B848	N/A	Kwiet	60 kW/70 kva Used Diesel Generator	199323	10,000.00
B849		Marathon	21 KW Generator	8972497710	2,500.00
B850	2008	Caterpillar	C13 Test Engine	LGK14200	80,000.00
B851	2008	Double Life	Mud Mixer 250 6x5x11 Unitized Pump	8C0Q1706	3,000.00
B852	2010	Perkins	NJ38958 Gravel Pump	U068223U	15,000.00
B853	2005	Caterpillar	C18 Test Engine	WJH00600	135,000.00
B854	2008	Caterpillar	C27 Test Engine	1T916122891071293	170,000.00
B855	2006	Cheetah	Gen Set Trailer	5EF2GC3096B765521	130,000.00
B856	None	None	Power Tongs (1)	PT1	10,000.00
B857	None	None	Power Tongs (2)	PT2	10,000.00
B858	2006	John Deere	6090HF485	RG090L003933	15,000.00
B859	2005	Kwiet Power Gen Set		71051-0000066	10,000.00
B860	2011	Caterpillar	C-18 Test Engine	1914B860	130,000.00
B861	2009	Multi-Quip	Gen Set	8010260	30,000.00
B862	2012	Caterpillar	C-15 Test Engine	LDN01265	105,000.00

Zim Industries, Inc., dba Bakersfield Well & Pump Co. Equipment List

Equip #	Model Year	Make	Model	VIN/Serial #	Market Value
B863		Hipower	49 KW Gen Set	1M9BU1128BN631875	20,000.00
B864	2010	Caterpillar	C-32 Test Engine	TLD00651	195,000.00
B865	2014	Multi-Quip	40 KW Gen Set	7250677	30,000.00
B866		John Deere	6081HF070 Test Engine	B866RG6081H272623	1,500.00
B867		John Deere	6081HF070 Test Engine	B867RG6081H292322	1,500.00
B902	1996	JCB	930 Forklift #2	729797A/06661290	15,000.00
B903		Briggs & Stratton	Compressor 5 HP		500.00
B907		Lakos	De Sander	None	3,000.00
B908		Lakos	8" De Sander	None	2,000.00
B909	1990	Case	570 XLT Skip Loader 4x4	JJG0263352	20,000.00
B911		Shopmade	Fresh Water Tank	None	3,000.00
B915		Eastman Kodak	Slope Indicator	None	3,200.00
B916		Wakashaw	Wire Line On Skid (need info)	None	500.00
B917	2002	Daewoo	Forklift	CX.01005	6,500.00
B918		Lincoln	Welder	787452	1,500.00
B919		Miller	Welder Portable (Back of Pickup)	KK103472	2,500.00
B922	1987	JCB	930 Forklift (320-3)	930/607177	15,000.00
B923	1996	JCB	930 Forklift	760960B/06661662	15,000.00
B927	1979	Caterpillar	Forklift Yard	12V00532	5,000.00
B930		Landa	Shop Pressure Wash	None	2,000.00
B931	1996	Eagle	Picher Forklift Mod#R80	49A03532	15,000.00
B932	1998	John Deere	Forklift 486 E 4x4	TO48GEX842243	15,000.00
B935	1999	Case	580L Backhoe	JJG0219501	25,000.00
B936	1987	Case	580 K Backhoe	17421061	25,000.00
B939	1998	Case	580L 4x4 Loader/Backhoe	JJG0242170	15,000.00
B940	2000	Mitsubishi	Forklift Yard	FD80F32B0001S	25,000.00
B942	2002	Case	580 SM Loader Backhoe	JJG0374270	25,000.00
B945	1998	Case	590 Super L Backhoe	JJG0211209	25,000.00
B946	2000	Case	580 Super L Backhoe	JJG0305716	25,000.00
B947	1984	Champion	Forklift	H35070ZDDTZ840234	10,000.00
B948	1990	Case	585 E Case Forklift	JJG0130247	10,000.00
B950	1998	Case	580 Super L Backhoe	JJG0201125	12,000.00
B953	1986	Caterpillar	CR80 Forklift	49A00846	10,000.00
B954		Shopmade	20,000 Gallon Water Tank	None	5,000.00
B955	2001	Cat/Eagle Pitcher	RT604WD	4RT01216	12,000.00
B956	2001	Cat/Eagle Pitcher	RT604WD	4RT01215	12,000.00
B957	2001	Cat/Eagle Pitcher	RT604WD	4RT01209	12,000.00
B958	2006	Bobcat	331G Mini Excavator	234313713	15,000.00
B959	2005	Bobcat	331G Mini Excavator	234312419	15,000.00
B960	2007	Magnum	MLT3060MMH Portable Light Tower	075658	2,500.00

Zim Industries, Inc., dba Bakersfield Vell & Pump Co. Equipment List

Equip #	Model Year	Make	Model	VIN/Serial #	Market Value
B961		UB H019	Mini Excavator Auger	05287	1,000.00
B962	2005	Toyota	7FGU30 Forklift	7FGU3067762	15,000.00
B963	2006	Bobcat	S175 Skid Steer Loader	530112045	15,000.00
B964	2005	John Deere	325 Skid Steer Loader	105872	10,000.00
B965	2006	Case	580M Series 2 4x4 Backhoe	N6C401710	34,000.00
B966	2005	Case	580M Series 2 4x4 Backhoe	N5C389850	34,000.00
B967	2003	John Deere	310 G 4X4 Loader Backhoe	T0310GX915345	32,000.00
B968	2005	John Deere	310 G 4X4 Loader Backhoe	T0310GX945870	32,000.00
B969	2003	John Deere	310 G 4X4 Loader Backhoe	T0310GX929345	32,000.00
B970	2004	John Deere	310 G 4X4 Loader Backhoe	T0310GX942165	32,000.00
B971	2008	Toyota	8FGU25 5K Forklift	8FGU2514820	20,000.00
B972		Caterpillar	DP90 Forklift	2DP00036	30,000.00
B973	1999	Hyster	S30XM Forklift	C010H05172W	7,500.00
B974	2000	Hyster	S40XMS Forklift	C010H06108X	7,000.00
B975	2006	Manitou	M40-4-T2 Forklift	753128	20,000.00

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Safety Policy Statement

“It shall be the Safety policy of Zim Industries to achieve the greatest practical degree of freedom from preventable injuries and to insure every employee safe and healthful working conditions free from recognized hazards. The personal safety and health of each employee is of primary importance and will never be less than the number 1 priority of any job task or project planning. It is the goal of Zim Industries to understand, adapt to, and create advancements in all aspects of safety for the wellbeing of our employees and organization.”

-Curt Zimmerer/President, CEO

No employee is required to work at a job known to be unsafe or dangerous to his/her health. Your cooperation in detecting hazards, reporting dangerous conditions and controlling workplace hazards is a condition of employment. Inform your supervisor immediately of any situation beyond your ability or authority to correct. Employees will not be disciplined or suffer any retaliation for reporting a safety violation in good faith.

This program complies with the law commonly known as S.B. 198. The regulation detailing the operation of S.B. 198 is located in the California Code of Regulations, Title 8, General Industry Safety Orders, Section 3203.

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ZIM INDUSTRIES
CONSTRUCTION CODE OF SAFE PRACTICES

The purpose of the Construction Code of Safe Practices (COSP) is to furnish written guidelines for the prevention of accidents on all job sites and to comply fully with the requirements of the applicable laws and safety orders of the State of California and the Federal Government.

Every Superintendent and Foreman shall be provided with a copy of the Injury and Illness Prevention Program, the Code of Safe Practices, and shall have a working knowledge of their contents. There are times when our company's safety requirements are more stringent than existing state and federal safety orders. In all cases, the more stringent requirement will be followed.

ADVANCE PLANNING FOR CONSTRUCTION WORK

Each operation of a construction job should be planned in advance. Such planning is needed at all stages of the project. It should start prior to preparation of bids and continue throughout the job with Supervisors and Foremen doing their share.

Construction planning will eliminate some accidents automatically by creating a well-organized job. Expert planning includes special attention to safety, and thus is highly effective in making the operation safe and efficient.

The following items should be given consideration while doing your advance planning to provide safe access and movement:

1. **Location of Utilities and Services:** Consider location of high-voltage lines. If at any time operations may come within the minimum distances established in the Electrical Safety Orders, arrange to have the line moved or de-energized, erect barriers, or set up special working procedures. Except on private easements, underground service alert must be contacted to determine the location of subsurface utility installations in the area.

REMEMBER, BEFORE YOU DIG, CALL U.S.A. 1/800-642-2444

2. The following work area problems are to be considered and dealt with by the individual in charge at the particular project:
 - a. Fall protection
 - b. Adequate walkways and runways.
 - c. Adequate ladders, stairways, or elevators.
 - d. Work areas and passageways clear of rubbish, debris, nails, etc.
 - e. Protection for floor and roof openings.
 - f. Adequate illumination.

3. Schedule work for safety:

- a. Have safety materials on job when needed, i.e. hard hats, safety glasses, goggles, ear plugs, trench jacks, safety belts, respirators, first aid kit, etc. including adequate replenishments.
- b. Plan work to avoid too many trades in a small area at the same time.
- c. Schedule work crews so the flow of equipment and manpower does not create a safety hazard.

4. Work procedure material handling:

- a. Plan for methods of elevating and handling materials (adequate space, proper auxiliary equipment, i.e. cranes, hoists, elevators, trucks, etc.).
- b. Plan for methods of loading and unloading (adequate space, proper auxiliary equipment, i.e. loaders, cranes, rigging, fork lifts, etc.).

5. Plan for the following steps pertaining to tools and equipment:

- a. Repair, maintenance, and care.
- b. Inspection.
- c. Adequate supplies of the right tools for each part of the job.

6. Cal-OSHA requires a permit for the following activities:

- a. Construction of trenches or excavations 5 feet or deeper which workers must enter.
- b. The construction or demolition of any building, structure, or scaffolding, or falsework more than 36 feet high.

7. In buildings 2 or more stories (24 feet) suitable permanent or temporary stairs shall be installed to the upper most floor or decked floor. A minimum of one (1) stairway is required on buildings less than 3 stories (36 feet) with two (2) stairways required for buildings taller than 3 stories.

8. On buildings taller than 60 feet (measured to the highest point of the building - i.e. roof of penthouse or top of parapet walls, a construction passenger elevator for hoisting workers is required.

Note: All workers have the right to refuse to work in an unsafe place or to perform an unsafe job activity without fear of reprisal.

GENERAL SAFETY PRECAUTIONS

1. Every reasonable effort shall be taken to ensure the safety of workers in all situations, whether or not provided for by our company's rules and safety program.
2. No worker shall be required or knowingly permitted to work in an unsafe place unless for the purpose of making it safe, and then only after proper precautions have been taken to protect the worker while doing such work.
3. The playing of portable radios or use of Walkman-type radios is not allowed by company employees on projects.
4. All -required safety and health posters, including Cal-OSHA "Job Safety and Health Protection" and the "Log and Summary of Occupational Injuries and Illness," shall be posted on a company bulletin board.
5. All workers shall, at a minimum, wear work pants or jeans, shirts with sleeves, hard soled - leather work boots, hard hat, safety glasses, and any personal protective equipment necessary.

FIRE PREVENTION PLAN

1. Employees shall be informed of escape procedures and an emergency escape route when introduced to the job site. The Foreman and Superintendent are responsible for accounting for all employees during any emergency and are responsible for rescue and medical duties. All such procedures shall be changed as conditions warrant.
2. Housekeeping must be maintained in good condition. Safe and unobstructed access to all available fire fighting equipment shall be maintained at all times.
3. All necessary fire fighting equipment shall be conspicuously located or the location conspicuously marked. All fire-fighting equipment shall be periodically inspected and maintained in operating condition. Defective equipment shall be immediately replaced.
4. Fire extinguishers rated not less than 2A shall be provided for each 3,000 square feet of the floor area or fraction thereof. Where the floor area is less than 3,000 square feet, at least one (1) extinguisher shall be provided. Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 75 feet.
5. At least one (1) fire extinguisher rated not less than 2A shall be provided on each floor. In multi-story buildings, at least one (1) fire extinguisher shall be located adjacent to the stairway at each floor level.
6. Portable fire extinguisher shall be inspected monthly or at more frequent intervals and serviced at least annually by a person licensed or registered by the State Fire Marshal.

MEDICAL SERVICES

1. **First Aid Kits:** Every crew shall have a first aid kit at their job site. The first aid kit shall be kept in a sanitary and usable condition, and the contents shall be inspected regularly to ensure that any expended items are promptly replaced. The minimum first aid supplies available shall be determined by the Table enclosed within the kits. Contact the main office for replacement supplies.
2. **First Aid Training:** Each Project Manager, Foreman, and Superintendent shall be trained in emergency first aid and shall possess a current certificate. Acceptable certificates are those offered by the Red Cross (the Standard First Aid Multimedia, Standard First Aid and Personal Safety, Advanced First Aid and Emergency Care courses) or a course from a person certified to instruct from the Mine Safety and Health Administration.
3. **Emergency Telephone Numbers:** The telephone number of the following emergency services shall be maintained at each project:
 - a. A physician and at least one alternate, if available
 - b. Hospitals.
 - c. Ambulance services.
 - d. Fire protection services.
 - e. Local law enforcement office.
 - f. 911 Where service exist.
4. **Emergency Medical Services:** Minor injuries shall have prompt first aid, and the employee shall be taken to a physician if required. Injuries that are more serious in nature shall be handled in the following manner:
 - a. Emergency first aid shall be administered, and a crew member shall immediately make the emergency telephone calls.
 - b. If rescue is required, the first telephone call should be to "911" or to the local fire protection service. Confirm with the fire department that it will dispatch the emergency rescue vehicle. Have someone meet the vehicle at a pre-determined spot.
 - c. If rescue is not required, then an ambulance service, physician, or hospital can be called. If a physician or hospital is called, confirm that they will dispatch the emergency rescue vehicle.
 - d. If the injuries occurred in a vehicular accident on a public road, then the appropriate law enforcement agency should be contacted in addition to obtaining medical help.
 - e. Suitable facilities for drenching the body or flushing the eyes with clean water shall be available where the eyes or body may be exposed to injurious or corrosive materials.

PERSONAL PROTECTIVE EQUIPMENT

Employees shall be provided with and shall use the appropriate personal protective equipment when necessary for safety as follows:

1. Eye and Face Protection: Employees working in locations or doing the type of work where there is a risk of receiving eye injuries from flying particles, hazardous substances, projections, or injurious light rays shall wear appropriate face and/or eye protection equipment.
 - a. Safety eye glasses are required on all projects
 - b. Face shields and safety glasses shall be worn together when flying particles are created by a grinder, chipping gun, jack hammer, etc.
 - c. A welder's helmet or goggles with the correct tint to protect from ultraviolet and infrared radiation shall be worn when welding or when doing a job that requires looking at the welding.

NOTE: The wearing of contact lenses is prohibited in working environments having exposure to hazardous materials or where light flashes may exist, except when special precautionary procedures, which are medically approved have been established for the protection of exposed employees.

2. Respirator Protection: A proper respirator shall be worn when exposed to harmful levels of dust, hazardous gases, vapors, mists, and fumes. Supervisors and Foremen shall ensure that employees are trained in use of respirators. The type of respirator to be used will generally be determined by the substance to which employees may be exposed. Only NIOSH or MSHA approved equipment for the particular exposure shall be used. When in doubt, contact may be made with the company providing the respirators regarding the correct respirator to use under the circumstances. Determining the correct respirator must be done prior to any employee being exposed to the substance in question.
3. Body Protection:
 - a. Clothing appropriate for the work being done shall be worn. Loose sleeves, tails, lapels, cuffs, or other loose clothing shall not be worn around tools, machinery, or equipment in which it might become entangled. Clothing saturated or impregnated with flammable liquids, corrosive substances, irritants, or oxidizing agents shall be promptly removed and shall not be worn until properly cleaned.
 - b. Orange shirts or vests shall be worn whenever there is, or is likely to be exposure to vehicular traffic and/or earthmoving equipment.
 - c. Employees shall wear shirts with sleeves at all times.
 - d. Shorts and short trousers are not allowed on construction sites.
4. Head Protection: Bill type non-metallic safety hard hats shall be worn at all times. Plastic caps are not a substitute for safety hard hats and are not allowed on projects.

5. Hand Protection: Hand protection may be required for employees whose work exposes their hands to hazardous substances, cuts, or burns.
6. Foot Protection:
 - a. Appropriate foot protection shall be worn by employees who are exposed to foot injuries from hot, corrosive, poisonous substances, falling objects, crushing or penetrating actions that may cause injury. This is limited to hard soled leather work boots with steel toe unless conditions dictate otherwise.
 - b. Footwear which is defective or inappropriate to the extent that its ordinary use creates the possibility of foot injuries shall not be worn.
 - c. Tennis or court type shoes are not allowed.
7. Ear Protection: Ear protection shall be worn when required by the Noise Control Safety Orders and as the Foreman or employee deem it necessary.
8. Sanitation and Sterilization of Personal Safety Devices: Goggles, rubber gloves, respirators, and other protective devices shall not be shared among employees unless the devices have been cleaned.

GENERAL SAFETY AND HEALTH RULES

1. Housekeeping: All job sites and construction storage yards shall be maintained reasonably free of dangerous depressions, obstructions, and debris. Trucks and equipment shall be kept reasonably clean of debris and trash.
2. Alcoholic Beverages and Drugs: Being under the influence of, or using alcoholic beverages and drugs during working hours, including the mid-shift meal period and overtime is prohibited. The operation of company vehicles or equipment (owned or leased) while under the influence of alcohol or drugs is prohibited. Both violations are grounds for termination.
3. Removal of Safeguards or Safety Device: Safeguards, safety devices, or safety appliances shall not be made ineffective or removed, except for the purpose of making repairs or adjustments, in which case adequate substitute precautions shall be followed until they are back in service.
4. Proper Use of Tools: Employees will not use tools that are in an unsafe condition. All electric tools will be properly grounded or otherwise properly protected.
5. Scaffolds: Proper scaffold erection begins from the "bottom working up" and includes the use of appropriate base plates. The working platform must have both a top rail and a mid-rail. Ties to an adjacent structure are required with double No. 12 iron wire or equivalent. Toe-boards are required if people are working below, or passing adjacent to the scaffold.

SPECIFIC CONSTRUCTION SAFETY REQUIREMENTS

EXCAVATION AND SHORING

1. Do-not allow anyone to enter an excavation or trench, which is more than 5 feet deep unless it is properly shored, or the banks are sloped back to the correct angle of repose.

SOIL OR ROCK TYPE	MAXIMUM ALLOWABLE SLOPES (H:V) FOR EXCAVATIONS LESS THAN 20 FEET DEEP	
STABLE ROCK	VERTICAL	(90 degrees)
TYPE A	3/4:1	(53 degrees)
TYPE B	1:1	(45 degrees)
TYPE C	1 1/2:1	(34 degrees)

2. If the soil type has not been determined by a soils engineer, the minimum slope will be 1 1/2 to 1.
3. A trench over 5 feet deep will not have a vertical bank greater than 3 1/2 feet.
4. Do not allow anyone to enter manholes, underground vaults, chambers, tanks, silos, or other similar places that receive little ventilation, unless it has been determined that it is safe. Field Supervisors are responsible for following state, federal, and company safety standards and insuring that employees under their supervision follow these standards.
5. Trenches over 4 feet deep must have ladders within 25 feet from all employees in the excavation.
6. Locate excavation spoil at least 2 feet from the edge of the excavation.
7. Storing or sloping for excavation deeper than 20 feet shall be designed and approved by a California Registered Engineer.
8. Do not allow digging to begin in areas suspected of having underground utilities without USA notification or verification of location of utilities.
9. Any project where an excavation in excess of 5 feet deep is anticipated requires an Excavation Permit issued by CAL/OSHA.

FALL PROTECTION

Fall Protection Plan - A job specific Fall Protection Plan is necessary when the use of conventional fall protection (guard rails, personal fall arrest systems, or safety nets) is impractical or why their use would create a greater hazard. This specific fall protection plan must be prepared by a qualified person and developed specifically for the site where the construction work is being performed and the plan must be maintained up to date, and kept at the site. The plan must include a discussion of the measures that will be taken to reduce or eliminate the fall hazard for workers who cannot be provided with protection provided by conventional fall protection systems.

Exposed Leading Edge - A full body harness with shock absorbing lifeline is required to be worn by employees working next to a leading edge and subject to a fall of 15 feet or more from any location to a surface below, when otherwise unprotected by other means. Depending on conditions, the situation may require safety belts/harnesses at heights of 7 1/2 feet. An example would be a scaffold in excess of 7 1/2 feet without handrails.

Should any handrail or decking be removed, workers are required to notify the site superintendent and be properly tied off. At no time will unprotected areas be left unattended.

Floor & Wall Openings - All floor openings, skylight openings, elevator shafts, and stairwells must be provided with suitable covering, guardrails with toe-boards, or 3/8" safety cable. Clearly mark any temporary covers with caution signs.

Ladders - Ladders that are broken, weak, or missing rungs shall not be used, and should be removed from the job immediately. No one will be allowed on the top 2 steps unless protected by a safety belt or other fall protection means.

Ladders shall not be loaded in excess of the safe capacity for which they were designed. Long ladders shall be braced to prevent undue deflection.

Unless suitable hand holds are provided, the side-rails of all ladders used to serve a platform shall extend at least 3 feet above the upper landing. Ladders other than stepladders shall be secured against displacement at the top and bottom, and shall be braced or tied off.

Note: Refer to the "Fall Protection for the Construction Industry" summary packet included in the Appendix of this manual for specific details on fall protection.

POWDER-ACTUATED TOOLS

1. The Foreman shall insure that only qualified persons who carry valid operators cards for the tools to be used are permitted to operate powder-actuated tools.
2. Powder-actuated tools and powder loads shall be locked in a container and stored in a safe place when not in use and shall be accessible only to authorized personnel.

3. Eye or face protection shall be worn by operators and assistants when the tools are in use.
4. Warning signs will be posted during operation.

ELECTRICAL EQUIPMENT AND TOOLS

1. Unless double insulated, all electrical equipment and tools must be grounded. Ground fault circuit interrupters must be installed for all 110-volt power services.
2. Flexible cords and cables shall be protected from accidental damage. Only heavy-duty twist lock type cords will be used.
3. The minimum size of temporary poles shall be 6"x6", and overhead lines must be at least 12 feet above walkways and 16 feet above the surface where equipment is used.

ELECTRICAL SAFETY – LOCKOUT/TAGOUT

1. Only authorized and qualified employees trained in electrical safety practices and procedures are allowed to work on energized circuits. Authorized and qualified employees will use the appropriate personal protective gear.
2. Employees will not conduct work on energized circuits of 600 volts or above.
3. Lockout and tagout procedure will be followed to de-energize equipment prior to conducting maintenance or repair on that equipment.
4. If equipment has more than one energy source, all energy sources must be identified and the appropriate controls be taken to ensure the equipment is de-energized.

COMPRESSORS AND COMPRESSED AIR

1. All compressors must be equipped with pressure relief valves and pressure gauges.
2. All compressor air intakes must be installed and equipped to ensure that only clean, uncontaminated air enters the compressor.
3. Every air receiver must be provided with a drain pipe and valve at the lowest point for the removal of accumulated oil and water.
4. Compressed air receivers must be periodically drained of moisture and oil.
5. All safety valves shall be tested frequently and at regular intervals to determine whether they are in good operating condition.
6. A current operating permit issued by the Division of Occupational Safety and Health shall be maintained.

7. The inlet of air receivers and piping systems must be kept free of accumulated oil and carbonaceous materials.

COMPRESSED GAS CYLINDERS

1. Cylinders with a water weight capacity over 30 pounds must be equipped with means for connecting a valve protector device, or with a collar or recess to protect the valve.
2. Cylinders must be legibly marked to identify clearly the gas contained.
3. Compressed gas cylinders should be stored only in areas that are protected from external heat sources such as flame impingement, intense radiant heat, electric arcs or high temperature lines.
4. Cylinders must not be located or stored in areas where they will be damaged by passing or falling objects or subject to tampering by unauthorized persons.
5. Cylinders must be stored or transported in a manner to prevent them from creating a hazard by tipping, falling or rolling.
6. All cylinders containing liquefied fuel gas must be stored or transported in a position so that the safety relief device is always in direct contact with the vapor space in the cylinder.
7. Valve protectors must always be placed on cylinders when the cylinders are not in use or connected for use.
8. All valves must be closed off before a cylinder is moved, when the cylinder is empty, and at the completion of each job.
9. Low-pressure fuel-gas cylinders must be checked periodically for corrosion, general distortion, cracks, or any other defect that might indicate a weakness or render them unfit for service.
10. The periodic check of low-pressure fuel gas cylinders includes a close inspection of the cylinder's bottom.

WELDING, CUTTING AND BRAZING

1. Only authorized and trained personnel are permitted to use welding, cutting or brazing equipment.
2. Precaution must be taken to prevent mixture of air or oxygen with flammable gases, except at a burner or in a standard torch. Cylinders must be kept away from sources of heat.
3. Storage of flammable gas cylinders and oxygen cylinders must be at 20 foot distance or separated by a non-combustible wall at least five feet high.

4. Only approved apparatus (torches, regulators, pressure-reducing valves, acetylene generators, manifolds) may be used.
5. Grounding of the machine frame and safety ground connections of portable machines must be checked periodically. Electrodes must be removed from the holders when not in use. All electric power to the welder must be shut off when no one is in attendance.
6. The welder is strictly forbidden to coil or loop welding electrode cable around his body.
7. All wet-welding machines must be thoroughly dried and tested before being used.
8. All work and electrode lead cables must be frequently inspected for wear and damage, and replaced when needed.
9. All connecting cable lengths must have adequate insulation.
10. Hot work precaution must be used to confine heat, sparks and slag from coming into contact with combustible material in the area. Fire watchers must be assigned when welding or cutting is performed in locations where a serious fire might develop.
11. When welding is done on metal walls, precautions must be taken to protect combustibles on the other side.
12. Before hot work is begun, used drums, barrels, tanks and other containers must be thoroughly cleaned to remove any substance that may remain to cause fire, explosion or produce toxic vapors.
13. Eye protection, helmets, hand shields and goggles must meet appropriate standards.
14. Employees exposed to the hazards created by welding, cutting or brazing operations must be protected with personal protective equipment and fire resistant clothing.
15. Check for adequate ventilation where welding or cutting is performed. When working in confined spaces, air monitoring should be conducted to ensure enough oxygen.

HEAVY EQUIPMENT AND VEHICLE OPERATION

1. Only authorized and trained drivers shall operate heavy equipment and vehicles. Seat belts are mandatory.
2. Inspect and check brakes, steering, tires and lights daily. Correct any systems needing attention before you start operation. If not safe and you cannot repair the matter immediately to your supervisor. Do not operate the equipment until it is made safe.
3. Drivers of forklift and other industrial trucks shall follow the operating rules posted at the job site.

4. Powered industrial trucks shall only be driven by operators who are certified and authorized.
5. Powered industrial trucks must be inspected on a preoperational basis by the certified and authorized operator.
6. A vehicle, which hauls 2 1/2 cubic yards or more of construction material, shall be equipped with an electrical warning device that operates automatically while the vehicle is backing. There are no exceptions.
7. All other vehicles operating at a construction site, which could, while backing, constitute a hazard to employees working in the area on foot, must have an alarm, signalman, or other effective device or method to warn employees.
8. All earth moving equipment shall be equipped with proper rollover protection.
9. All heavy equipment shall have seat belts provided and utilized.

HOISTING EQUIPMENT

1. Proper operating rules and signals shall be posted and shall be followed when hoisting equipment is used.
2. The rated load of the hoist must be legibly marked and visible to the operator. The controls are marked to indicate the direction of travel or motion.
3. Employees shall keep clear of suspended loads, traffic areas, etc.
4. The swing path must be selected and controlled to prevent unauthorized personnel from entering the swing area.
5. A suspended load must never be left unattended and be lowered to the working surface and the material handling equipment secured before leaving the load unattended.
6. Kinked cut or damaged wire rope slings shall be taken out of service. Fiber slings shall be inspected for damage or exposure to damaging oils or corrosives.
7. Maintain at least 10 feet distance from energized power lines in the vicinity of the hoist boom.
8. Equipment operators shall perform periodic inspections of hooks and other load carrying devices.

ABRASIVE WHEEL EQUIPMENT (GRINDERS)

1. Abrasive tool work rests must be adjusted to within 1/8 inch of the wheel.

2. The adjustable tongue on the topside of the grinder should be kept adjusted to within $\frac{1}{4}$ inch of the wheel.
3. The side guards should cover the spindle, nut, flange, and 75 percent of the wheel diameter.
4. Bench and pedestal grinders should be permanently mounted.
5. Goggles or face shields should always be worn when grinding.
6. The maximum RPM rating of each abrasive wheel should be compatible with the RPM rating of the grinder motor.
7. Visually inspect and ring test new abrasive wheels.

PUMPS AND PUMP OPERATIONS

1. Do not perform any maintenance on motor pumps **before** disconnecting the power source. Motors with automatic thermal protectors will automatically restart when the protector temperature drops sufficiently. All repairs should be performed by trained and qualified personnel only.
2. Before starting any pump, turn the shaft by hand to see that it rotates freely. Be sure the valve in the suction line is open and the discharge valve is closed. Check the pump for evidence of rubbing or binding which may be caused by piping strains. Prime pump before starting motor or damage can occur to the pump.
3. After starting the pump, slowly open discharge valve. See that all pipe connections are tight. On packed pumps, make certain that a slight amount of fluid seeps from the pump at the gland; this fluid is required to lubricate the packing.
4. A centrifugal pump must be primed before it can be operated. If run dry, internal damage can destroy rotating parts along with the packing and mechanical seal faces.
5. If the system has suction pressure, bleed all air from the pump casing and suction pipe by opening the pipe plug at the top of the casing. Rotate the shaft a few times if possible to allow any air to escape from inside the impeller passages.
6. If the system has suction lift and there is a foot valve in the suction pipe, fill the pump casing and suction pipe with fluid and allow the trapped air escape through the pipe plug at the top of the casing.
7. If the system has a suction lift but no foot valve, use a vacuum pump to evacuate the air from the pump case and suction pipe by connecting the ejector to the piping connection on the top of the casing.
8. Any mechanical or operating malfunctions should be reported immediately to the site supervisor.

HEAT ILLNESS PREVENTION

The risk of heat illness can be significantly reduced by consistently following a few simple steps.

1. Recognize the Hazard – California humidity can be 20 to 40% which presents a hazard in hot areas. At temperatures above 90 degrees F, especially with heavy work, heat risk reduction needs to be a major concern.
2. Water – There must be an adequate supply of clean, cool, potable water. Employees who are working in the heat need to drink 3 to 4 glasses (8 ounce per glass) of water per hour, including at the start of the shift to replace the water lost to sweat. For an 8 hour day, this means two or more gallons per day.
3. Shade – If possible work should be conducted in the shade. If not possible, a shaded area shall be provided for breaks and when employees need relief from the sun.
4. Acclimatization – For heavy work under very hot conditions, a period of 4 to 10 days of progressively increasing work time starting with about 2 hours work per day under the working conditions is recommended. For less severe conditions at least the first 2 or 3 days of work in the heat should be limited to 2 to 4 hours. Monitor employees closely for signs and symptoms of heat illness, particularly when they have not been working in heat for the last few days, and when a hot work day occurs.
5. Rest Breaks – Rest breaks are important to reduce internal heat load and provide time for cooling. Heat illness occurs due to a combination of environmental and internal heat that cannot be adequately dissipated. Breaks should be taken in cooler, shaded areas. Rest breaks also provide an opportunity to drink water.
6. Prompt Medical Attention – Recognizing the symptoms of heat illness and providing an effective response requires promptly acting on early warning signs. Common early symptoms and signs of heat illness include headache, muscle cramps, and unusual fatigue. Progression to more serious illness can be rapid and can include unusual behavior, nausea/vomiting, weakness, rapid pulse, excessive sweating or hot dry skin, seizures, and fainting or loss of consciousness.

Any of these symptoms require immediate attention. Even the initial symptoms may indicate serious heat exposure. If medical personnel are not immediately available on-site, and you suspect severe heat illness, you must call 911.

Regardless of the worker's protest, no employee with any of the symptoms of possible serious heat illness noted above should be sent home or left unattended without medical assessment and authorization.

7. Training – Supervisors and employees must be trained the risks of heat illness, and the measures to protect themselves and their co-workers. Training should include:
 - ✓ Why it is important to prevent heat illness

- ✓ Procedures for acclimatization
- ✓ The need to drink approximately one quart per hour of water to replace fluids
- ✓ The need to take breaks out of the heat
- ✓ How to recognize the symptoms of heat illness
- ✓ How to contact emergency services, and how to effectively report the work location to 911

Zim Industries Injury and Illness Prevention Plan

Implementation of the IIPP

To ensure Zim Industries compliance with California State Senate Bill 198 that requires employers to have an Injury & Illness Prevention Program (IIPP); the following is acknowledged:

1. **Responsible Person:** The responsibility for implementation of the IIPP rests with branch management, field superintendents and field supervisory staff. Responsible management and supervisory staff have been identified and have received applicable training to allow them to effectively implement the IIPP.
2. **Sanctions/Enforcement:** Injury prevention methods have been established and put in place to ensure that employees comply with safe and healthy work practices. Zim Industries management and supervisory staff has disciplinary processes in place; reward and recognition for employees practicing safe work practices; safety training and retraining programs, and other such programs that add to the effectiveness of the IIPP.
3. **Communication:** Zim Industries is a workplace where other languages may be spoken. Our safety communication program takes this into consideration and systems are in place for communicating with employees in a form readily understandable by all affected employees. Employees also know and understand they have the right to inform managers and supervisors of hazards at the worksite without fear of reprisal.
4. **Inspections:** Zim Industries has a system in place to identify potential occupational safety and health hazards. The program specifies all hazards identified as the result of evaluations of each work site by working superintendents, supervisors and employees as appropriate. It is understood this is the most technical and challenging aspect of establishing safety standards and as a result, hazards are identified for all work areas.
5. **Investigation Procedures:** The program also includes a procedure to investigate occupational injury or occupational illness. All injuries, illnesses and accidents are required to be investigated by management and supervisors in the respective area to determine the root cause of the incident and to apply the necessary corrective actions.
6. **Corrective Procedures:** Hazards for shop and yard operations, and drill sites have been identified and an appropriate code of safe practices has been developed. This is then applied to training, employee communication and safety inspections. Once potential hazards are identified for specific jobs and work areas, the following activities are undertaken:
 - ✓ Initiate training of new employees and provide current employees with new information on work hazards;
 - ✓ Train employees who receive a new assignment and exposure to new work hazards;
 - ✓ Familiarize superintendents and supervisors with safe work practices in their areas;
 - ✓ Conduct follow-up inspections by managers to ensure compliance.
7. **Training:** Appropriate safety training and instruction is provided to all new employees prior to assignment and when new job assignments are given where training has not been previously conducted. Training is also given:
 - ✓ When new substances, processes, procedures, or equipment are introduced to the workplace and represent a new hazard; and,
 - ✓ Whenever the employer is made aware of a new or previously unrecognized hazard.Superintendents, managers and supervisors are familiarized to the safety and health hazards to which their employees under their immediate direction and control may be exposed. Documentation of individual employee training is required.

1. IIPP Responsibility Assignments

The Managers of the Fresno and Bakersfield operations have the authority and responsibility for implementing the IIPP at their facilities. As with all programs, responsibilities have been delegated to other employees. Responsibilities for the IIPP extend from branch managers to field superintendents and to field supervisors.

Managers

Each branch manager must have a system in place where it is obvious they are involved in the safety process and is recognized as such by all facility employees.

The branch manager IIPP responsibilities include but are not limited to:

- ✓ Provide the necessary accountabilities to staff involved with implementation of the IIPP
- ✓ Provide the leadership and direction to ensure the continued effectiveness of the IIPP
- ✓ Conduct or delegate the implementation and maintenance of the IIPP to other qualified and trained field superintendents or supervisors
- ✓ Assist with the annual IIPP program audit by providing the necessary access to all personnel involved with the IIPP, review of all safety related documentation
- ✓ Monitoring effectiveness of the safety program through regular reviews of losses and communication with members of safety committees; and
- ✓ Requiring that adequate budget allocations are approved and in place for the safety program continued success.

Superintendents and Project Managers

All field superintendents and project managers must consider the safety of all work under their direction as a primary obligation the same as with production and quality. Their leadership and direction given to field supervisors is critical for the success of the safety program effort.

The field superintendent IIPP responsibilities include but are not limited to:

- ✓ Enforcement of all safety regulations and correction of any supervisor or employee observed doing a job in an unsafe manner
- ✓ Responsibility for complying with all policies, procedures, and practices, and with all applicable Cal/OSHA standards within respective functions and authority limits.
- ✓ Assist with conducting periodic safety inspections at drill sites and other areas of responsibility, and reporting all hazards or unsafe conditions which cannot be immediately corrected in order to assure abatement
- ✓ Authority to shut down any field operation or any other item that is found to be in an unsafe condition and presenting an imminent hazard to employees

Supervisors – Driller/Crew Foreman

Supervisors and driller/crew foremen (drill rig operator) are the foundation of the safety program. It is a basic requirement each field supervisor or shop supervisor to make the safety of employees an integral part of their supervisory function.

The supervisory safety responsibilities include, but not limited to:

- Understand and enforce safety regulations applicable to operations within their area of responsibility;
- Ensure that all new employees are properly oriented and trained before they start work
- Maintaining good housekeeping practices in areas of responsibility
- Ensure there is a system where employees have and use the proper tools for their jobs.
- Ensure that employees are counseled or disciplined for any unsafe act and maintaining the necessary documentation
- Conduct regular and timely safety orientation and training as specified by the hazards of the workplace and the IIPP requirements;
- Coach employees to recognize hazards and hazardous situations and always to be aware of safe work practices;
- Conduct safety inspections of work areas or drill sites as prescribed for their area of responsibility;
- Conduct accident investigation and implementing timely and effective corrective actions to prevent repetition ensuring materials and equipment are maintained in safe operating condition;
- Ensure personnel know, understand, and follow established safe work rules and guidelines;
- Enforce all safety rules, regulations, and guidelines;
- Provide the necessary personal protective equipment and training employees in its use;
- Ensure unsafe conditions and practices be corrected;
- Send documentation pertaining to safety and compliance with Cal-OSHA to the human resources department for centralized filing; and,
- Recommend appropriate discipline for unsafe work practices and/or violations of safety policy.

Drilling Crew and Other Field Personnel

These individuals are involved with the field drilling work. It is the duty and responsibility of each employee to follow safe working practices and comply with all safety rules and regulations. Employees are expected to:

- Follow all safety rules and regulations;
- Report injuries to their immediate supervisor;
- Report any unsafe conditions and unsafe acts immediately to their respective supervisor;
- Be aware of signs and symptoms of potential exposure to site contaminants and thermal stress;
- Train fellow employees on safe work practices whenever appropriate;
- Maintain housekeeping duties pertaining to their positions;
- Wear and use appropriate safety equipment as required;
- Maintain equipment in good condition with all safety guards in place when in use;
- Actively contribute to the success of the overall safety program;
- Attend and participate in all required safety training; and
- Advise co-workers of hazards and required safe work practices and procedures.

Program Administrator

The program administrator has the authority and the responsibility for implementing and maintaining the IIPP. Any and all changes to the IIPP must be approved and authorized through the program manager. The program administrator is accountable to the President of Zim Industries.

The IIPP program administrator duties include but are not limited to:

- Development and monitoring of an Injury and Illness Prevention Plan that meets the intent of Section 3203 of the General Industry Safety Orders;
- Keeping up to date on applicable Cal/OSHA regulations that affect the safety and health of all employees at all facilities;
- Establishment and maintenance of a system of accountability to ensure the effectiveness of the IIPP and that implementation of responsibilities for safety and health are carried out by those managers and supervisors at the facilities;
- Providing active leadership and participation in the safety program at all levels of management and at all facilities;

IIPP Recordkeeping

Inspection records and training documentation will be maintained according to the following schedule:

- Records of hazard assessment inspections: One year
- Documentation of safety and health training for each worker: One year, except for training records of employees who have worked for less than one year which are provided to the employee upon termination of employment.

Cal-OSHA requires documentation of records of occupational injuries and illnesses. This log is known as the OSHA 300-A log. The IIPP program administrator is responsible for this record keeping. The log is completed on a calendar year basis. The entries on the log must be made as early as practicable but no later than six days after learning of the injury or illness. A copy of the log must be kept on-site.

IIPP program administrator prepares the Annual Summary of the OSHA 300 log and copies are distributed to each affected department/division for posting no later than February 1 of each year. This summary must remain posted for three months to June 1.

The Log and Summary of Occupational Injuries and Illnesses must be kept for five years following the year to which they relate.

INJURY REPORTING

When a job injury occurs at work, the following procedures must be followed:

- Report the injury or illness to their immediate supervisor or another person in the organizational management structure.
- The employee should be assisted in obtaining medical care utilizing the authorized physicians, if possible. The employee's supervisor or co-workers may provide this transport assistance if it is not an emergency matter. If the injury is deemed emergency care is necessary, call 911.
- The supervisor should complete the "Medical Service Order" form for the employee to take to the doctor if the injury occurs at the principle place of employment. If the injury occurs at a location other than the principle place of employment (job site), arrangements must be made (in advance) for the injured employee to be attended to at the designated medical facility.
- Within one working day after an employee files a claim form, the employer shall authorize the provision of all treatment, consistent with the applicable treating guidelines, for the alleged injury and shall continue to provide treatment until the date that liability for the claim is accepted or rejected.
- The supervisor or designated person should assist the employee in completing the following forms:
 - A. Workers' Compensation Claim Form (DWC 1)
 - B. Employee's Report of Occupational Injury or Illness (Form 5020)

- The employer is required to date the DWC 1 form and provide copies to the insurer or claims administrator and to the employee, dependent or representative who filed the claim within one working day of receipt of the form from the employee.
- The employer workers' compensation coordinator is responsible for completion of the "Employer's First Report of Occupational Injury or Illness" Form 5020.
- The supervisor will complete the "Accident, Injury and Illness Investigation Report" form.
- All forms and documentation must be forwarded to the program administrator within 24 hours of the accident or illness.

The local Cal/OSHA office must be notified immediately by telephone or in person if death results or if an injury or illness: (a) Requires inpatient hospitalization of more than 24 hours for other than medical observations; or, (b) result in loss of any member of the body; or (c) produces any serious degree of personal disfigurement.

J

Date: 06/07/18

New SPQ Application
 SPQ Reapplication

SECTION A – GENERAL INFORMATION

Contractor Firm Name: Zim Industries, Inc DBA Bakersfield Well & Pump Co	Firm Address: 4532 E Jefferson Ave Fresno, CA 93725
Telephone: 559-834-1551	E-mail: curt@zimindustries.com
Contact person: Curt Zimmerer	Contractor License No.: 440537 License Expiration Date: 06/30/2019

Identify the highest ranking safety/health professional in your company or assigned to this project:

Name: Aaron Hanna	Title: Safety Manager
Phone: 559-834-1551/661-699-6584	E-mail: Aaron@zimindustries.com

SECTION B – SAFETY & HEALTH PERFORMANCE

1.) Provide your Workers' Compensation Experience Modification Rate (EMR) Data:

	Policy Year	EMR
Current EMR*:	2018	.77
1 Year Ago:	2017	.89
2 Years Ago:	2016	1.07
3 Years Ago:	2015	.96

*If your current EMR is greater than 1.25, initialing here certifies that you will provide a competent, full-time person or representative responsible for safety for all DWR projects: _____

*Initialing here certifies that your firm does not have an EMR: _____
 (Submit a copy of your firm's Loss Run Reports for the last three years if your firm does not have an EMR.)

Name of your firm's Workers' Compensation carrier: Zurich North America
 Phone number of Workers' Compensation carrier: 877-405-9045

2.) Is your firm self-insured for Workers' Compensation claims? YES NO (If yes, please attach a copy of the latest Annual Report to the State of California Department of Industrial Relations and/or State of California Certificate of Self-Insurance.)

SECTION C – LOST WORKDAY INCIDENCE RATES & CITATION HISTORY

Provide your actual injury and illness data below:

Provide the NAICS Code Number that best represents your firm: 237110
 (Provide any additional numbers here: _____)

(Provide three full years of data)	Last Year	2 Years Ago	3 Years Ago
Year:	2017	2016	2015
Number of hours worked by all employees:	418,186	525,709	523,107
Total Recordable Incident Rate*:	3.83	6.47	8.03
Incident Rate for Days Away from Work, Restricted Duty and/or Job Transfer*:	1.91	4.95	6.12
Total Number of Fatalities:	0	0	0

Incident Rate = [(Total Recordable Cases X 200,000 hours)/ Number of hours worked by all employees]

*If your latest incident rates are greater than 100% of the industry average for all your NAICS Code Numbers listed, initialing here certifies that you will provide a competent, full-time person responsible for safety for all DWR projects: CZ. The industry average can be found at <http://www.bls.gov/news.release/osh.nr0.htm>.

CZ

CITATION HISTORY

1. Have you received any regulatory (EPA, OSHA, MSHA, DOE, Coast Guard, etc.) citations in the last three years? YES NO
If yes, please answer the question below.
2. Have you abated all of the citations issued to you in the last three years? YES NO If no, please submit your citations and abatement action plan. N/A

SECTION D – SAFETY POLICIES AND PROCEDURES

Provide responses to the questions below:

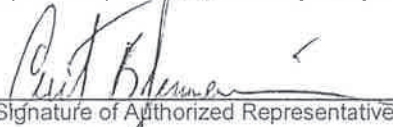
No.	Question	YES	NO*
1	Has your company established, implemented and maintained an effective, written Injury and Illness Prevention Program (IIPP) (CCR Title 8 §3203(a) and §1509(a))? If yes, a copy of the Program will be required at the job site.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Does your company conduct "toolbox" or "tailgate" safety meetings, or equivalent with employees at least every 10 working days? (CCR Title 8 §1509(e))	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Does your company have written procedures to identify and evaluate work place hazards, and correct unsafe or unhealthy conditions, work practices and work procedures in a timely manner? (CCR Title 8 §3203(a)(4) and (a)(6))	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	In your system for ensuring that employees comply with safe and healthy work practices, does your company take disciplinary action? (CCR Title 8 §3203(a)(2))	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	Does your company have a written Code of Safe Practices that relates to your company's operations? (CCR Title 8 §1509(b)) If yes, a copy of the Code of Safe Practices must be available for review, if requested.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6	Does your company have a written Hazard Communication Program? (CCR Title 8 §5194(e))	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	Does your company make a thorough survey of the conditions of worksites to determine, so far as practicable, the predictable hazards to employees and the kind and extent of safeguards necessary to prosecute the work in a safe manner? (CCR Title 8 §1511(b))	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	Does your company instruct employees in the recognition of hazards (i.e. flammable liquids and gases, poisons, caustics, harmful plants and animals, toxic materials, confined spaces, etc), in the procedures for protecting themselves from injury, and in the first aid procedure in the event of injury? (CCR Title 8 §1510(c))	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	Does your company have a procedure to investigate occupational injuries or occupational illnesses? (CCR Title 8 §3203(a)(5))	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10	Does your company review investigations of occupational accidents and causes of incidents resulting in occupational injury, occupational illness, or exposure to hazardous substances? (CCR Title 8 §3203(c)(4))	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	Does your company have a written Emergency Action Plan? (CCR Title 8 §3220)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	In your system for ensuring that employees comply with safe and healthy work practices, does your company have training and retraining programs? (CCR Title 8 §3203(a)(2) and (a)(7))	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13	Does your company maintain records of scheduled and periodic inspections and documentation of safety and health training? (CCR Title 8 §3203(b))	<input checked="" type="checkbox"/>	<input type="checkbox"/>

*Provide reason(s) for NO answer in the box below or on a separate sheet of paper. Please check the box if an extra page is attached.

SECTION E- CONTRACTOR CERTIFICATION STATEMENT

I certify under penalty of perjury that:

- (a) the information contained herein is true and correct to the best of my knowledge, and
- (b) no attempt has been made to give any false or misleading information or to withhold any information.

 _____ Signature of Authorized Representative	<u>Resident</u> _____ Title of Authorized Representative
<u>Curt B. Zimmerer</u> _____ Printed Name of Authorized Representative	<u>June 7, 2018</u> _____ Date Signed

THE DEPARTMENT OF WATER RESOURCES RESERVES THE RIGHT TO REQUEST ANY AND ALL DOCUMENTATION NECESSARY TO VERIFY RESPONSES SUBMITTED IN THIS SAFETY PREQUALIFICATION QUESTIONNAIRE.

QUESTIONNAIRE EVALUATION – DWR USE ONLY

Contractor is:

- Qualified and will be placed on the Qualified Contractor List, effective _____.
- Qualified, but Contractor must provide a competent, full-time person or representative responsible for safety, effective _____.
- Not Qualified.

Reviewer (Print Name): _____

Date: _____

Reason(s) contractor has been determined Not Qualified for this project:

State of California – Department of Water Resources
SAFETY PREQUALIFICATION QUESTIONNAIRE
 INSTRUCTIONS/GUIDELINES FOR COMPLETING QUESTIONNAIRE AND SCORING

The Safety Prequalification Questionnaire (SPQ) has been developed to evaluate each contractor's overall safety performance. Contractors must qualify in all sections prior to bidding on a Department of Water Resources project. If Qualified, Contractors shall be placed on a list that will be good for one year starting on the effective date listed on page 3 of the Safety Prequalification Questionnaire. Contractors will be required to apply each year.

SECTION A – GENERAL INFORMATION

Contractor shall complete all boxes in Section A. Contractor must provide license number and expiration date. Contractor must maintain a valid license through the life of the project. Failure to do so may result in work stoppage at contractor's expense and/or termination.

SECTION B – SAFETY & HEALTH PERFORMANCE

If EMR is greater than 1.25, then the contractor will provide a competent, full-time person responsible for safety for all DWR projects, at the expense of the contractor.

If no EMR, then the contractor must submit Loss Run Reports.

SECTION C – LOST WORKDAY INCIDENCE RATES & CITATION HISTORY

Contractors shall also be evaluated on OSHA incident rates compared to the most current data provided by the Annual Survey of Occupational Injuries and Illnesses conducted by the Bureau of Labor Statistics, U.S. Department of Labor ("BLS") <http://www.bls.gov/news.release/osh.nr0.htm>. Compare the contractor's incidence rates to the BLS incidence rates for the NAICS (North American Industry Classification System) code.

If incident rates are greater than industry average, then contractor will provide a competent, full-time person responsible for safety for all DWR projects, at the expense of the contractor.

Citation History:

Question No. 1 Response	Question No. 2 Response	ACTION
"NO"		<u>Qualified</u>
"YES"	"YES"	<u>Qualified</u>
"YES"	"NO"	Contractor must submit the following items to DWR: 1. Copies of all citations (violations) received in the full three-year period from the time this questionnaire was executed. 2. Abatement plan for each citation (violation).

SECTION D – SAFETY POLICIES AND PROCEDURES

You are required to answer all questions accurately. Notwithstanding the information provided, Contractors shall comply with all applicable laws, including but not limited to those pertaining to Cal/OSHA.

SECTION E – CONTRACTOR CERTIFICATION STATEMENT

If contractor provides information that is later determined to be false or withholds information, the contractor will be immediately considered Not Qualified.

SCORING THE SPQ

Section	Description	Reviewer to Select One*:
A	General Information	Qualified / Not Qualified
B	Safety & Health Performance	Qualified / Not Qualified
C	Lost Workday Incidence Rates & Citation History	Qualified / Not Qualified
D	Safety Policies and Procedures	Qualified / Not Qualified
E	Contractor Certification Statement	Qualified / Not Qualified

*If the contractor is determined to be Not Qualified, DWR must provide reason(s) to the contractor in writing.

APPEAL PROCESS (Public Contract Code Section 10161)

If DWR intends to disqualify a prospective bidder based upon the bidder's safety record, DWR will notify the prospective bidder in writing of that intention. DWR's notice of intention shall be sent by overnight mail via a delivery service that provides online tracking, and shall inform the bidder that the bidder has the right to a hearing. The bidder must request that hearing within ten calendar days of receiving such notice of intention. If the bidder does not request a hearing within this time, DWR's determination shall become final.

Within seven calendar days of receiving the bidder's request for a hearing, DWR shall notify the bidder in writing of the date, time and place of the hearing. The hearing shall be held no sooner than ten calendar days and no later than fifteen calendar days after the notice is given. The notice shall inform the bidder of his right to have counsel present and to present testimony and documents in support of his position. DWR may also have its counsel present.

The hearing shall be informal and shall be conducted before DWR's designee, who, after considering all testimony and documentation presented, shall issue a written decision no later than five calendar days following the hearing. The decision is not subject to further appeal to DWR.

The appeal process may take up to 45 days. The bidder shall not be entitled to bid on any contracts with DWR until it has met DWR's safety pre-qualification standards. The bidder shall have the right to withdraw its application for prequalification or its appeal at any time before DWR's decision becomes final. Such withdrawal will not preclude the bidder from re-applying for prequalification.

K

KRIEGER & STEWART INCORPORATED

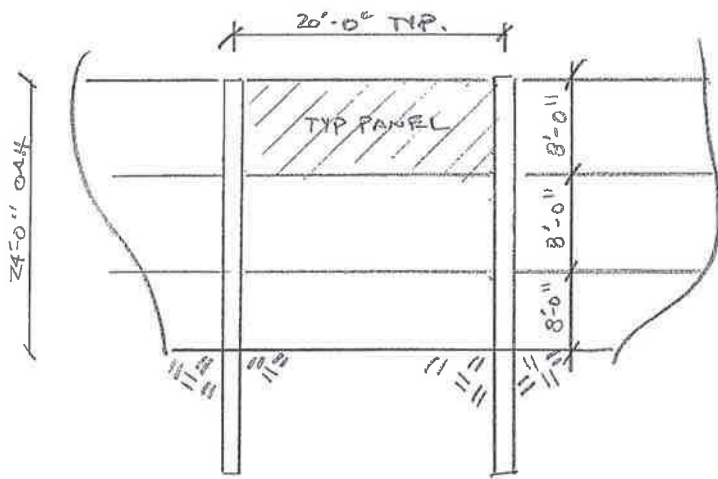
SOUND WALL PANEL FRAME STRUCTURAL CALCULATIONS

BY: DANIEL K. JAGGERS
11/30/00



[Handwritten Signature]

[Handwritten Signature]
11/30/00

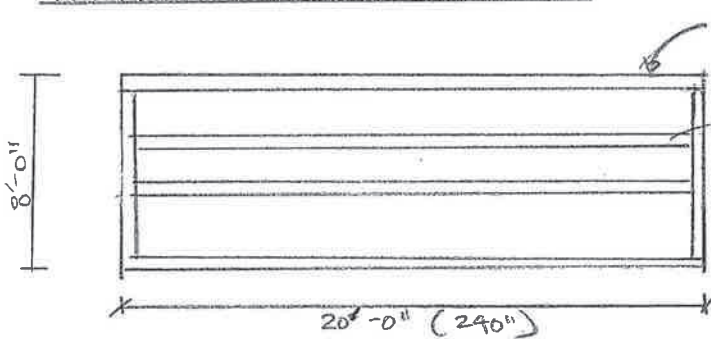


DESIGN CRITERIA
 1997 UBC
 WIND LOAD: EX'P B, 70MPH

 WT OF PANELS = 4PSF

 BY INSPECTION WIND CONTROLS

TYP PANEL CONFIGURATION



3" x 3" x 0.065 WALL
 ASTM A-46
 TYP ALL AROUND

Max Wind Force @ Top of Wall
 Max wind @ 12.7 PSF (2 CENTER GIRTS IN PANEL CRITICAL)

$$W_{wind} = \frac{8}{3} \times 12.7 = 33.9 \text{ PSF}$$

$$M_{max} = \frac{33.9 (20)^2}{8} = 1.693 \text{ K}'$$

$$= 20.32 \text{ K}''$$

USE ASTM A-46 $F_y = 27.6 \text{ KSE}$

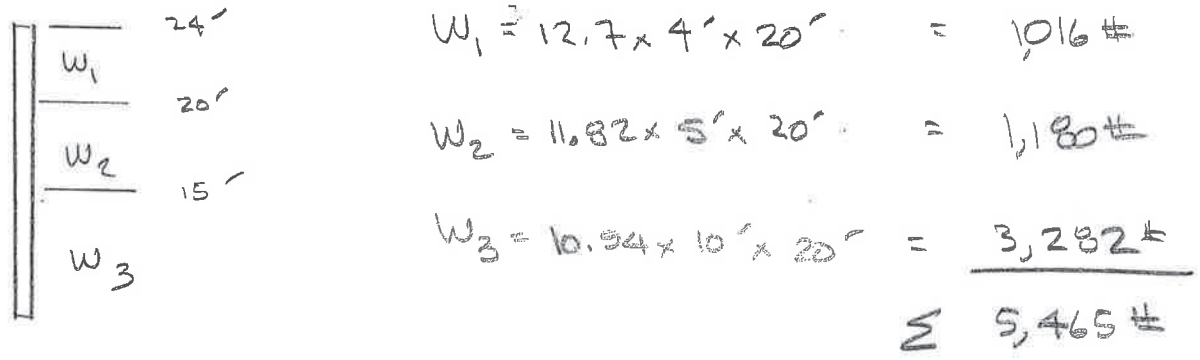
Section Modulus REQ'D = $\frac{20.32 \text{ K}''}{27.6 \text{ KSE} (4/3)} = 0.5536 \text{ in}^3$

$S_{x \text{ req'd}} = 0.5536 \text{ in}^3$

$S_x \text{ provided by } 3 \times 3 \times 0.065 \text{ WALL}$
 $= 0.731 \text{ in}^3 \text{ OK}$

SEE STRUCTURAL PROPERTIES OF 3" x 3" x 0.065 WALL @ END





Moment @ SUPPORT COLUMN BASE

$$M_{W_1} = 1016 \# \times 22' = 22.352 K'$$

$$M_{W_2} = 1,180 \# \times 17.5' = 20.650 K'$$

$$M_{W_3} = 3282 \# \times 7.5' = 24.615 K'$$

$$\Sigma M = 67.617 K'$$

ΣM REQ'D FOR GRADE B ASTM A-53 PIPE

$$\frac{67.617 K' \times 12 \frac{1}{4}"}{23.1 KSI \left(\frac{A}{3}\right)} = 26.41 \text{ in}^3$$

$F_y = 35 KSI$
 $.66 F_y = 23.1$

USE 10" STD WT PIPE

$$S_{x 10" \phi} = 29.9 \text{ in}^3$$

$$F_{\# ACT} = \frac{67.617 K' \left(12 \frac{1}{4}''\right)}{(29.9 \text{ in}^3) 1.33} = 20,640 \text{ KSI OK}$$



FOOTING

CLASS 3 SOIL, 97 UBC

ALLOWABLE LATERAL BEARING (97 UBC TABLE 18-1-A)

$$200 \text{ PSF} \times (2 \text{ per note A}) \times \frac{4}{3} = \underline{533 \text{ PSF}}$$

$$\text{CENTER OF GRAVITY} = \frac{67.617 \text{ K}'}{5.465 \text{ K}} = 12.37'$$

$$P_{\text{BASE}} = 5.465 \text{ K}, h = 12.35'$$

Assume 12' Embedment

$$S_1 = \frac{533 \times 12}{3} = 2.132 \text{ K}$$

$$P_{\text{FE O.D}} = 10 \frac{3}{4}'' = 0.90'$$

$$A = \frac{2.34 P}{S_1} = \frac{2.34 (5.465 \text{ K})}{2.132 \text{ K} (0.90)} = 6.66$$

$$d = \frac{A}{2} \left(1 + \sqrt{1 + \frac{4.36 h}{A}} \right)$$

$$= \frac{6.66}{2} \left(1 + \sqrt{1 + \frac{4.36 (12.37')}{6.66}} \right)$$

$$\underline{d = 13.37'}$$

FOR 24' HT, CLASS 3 SOIL, 70 MPH WIND,
EXPOSURE B

USE 10" ST WT COLUMN

13'-5" DEEP MIN



PREPARED BY DKJ DATE 11/30/00 CLIENT BAKERSFIELD WELL & PUMP FILE 891-1

CHK'D _____ DATE _____ JOB _____ SHEET 1 OF 1

KRIEGER & STEWART INCORPORATED

SOUND WALL PANEL FRAME STRUCTURAL LOADS AND MATERIAL PROPERTIES

BY: DANIEL K. JAGGERS
11/30/00



Daniel K. Jagers
11/30/00

KRIEGER STEWART, INCORPORATED

WIND LOAD

(1997 UBC USED FOR CALCULATIONS)

$$P = C_e \times C_q \times Q_s \times I_w$$

$C_q = 1.40$ HORIZONTAL (Per UBC Table 16-H)

$Q_s = 12.60$ (Per UBC Table 16-F)

$I_w = 1.00$ (Per UBC Table 16-K)

Basic Wind Speed: 70 mph

C_e (Combined height, exposure and gust factor coefficient)

C_e (Per UBC Table 16-G)

HT (ft)	EXPOSURE		
	D	C	B
0-15	1.39	1.06	0.62
15-20	1.45	1.13	0.67
20-25	1.50	1.19	0.72
25-30	1.54	1.23	0.76
30-40	1.62	1.31	0.84
40-60	1.73	1.43	0.95
60-80	1.81	1.53	1.04
80-100	1.88	1.61	1.13
100-120	1.93	1.67	1.20
120-160	2.02	1.79	1.31
160-200	2.10	1.87	1.42
200-300	2.23	2.05	1.63
300-400	2.34	2.19	1.80

q_s (Wind Stagnation pressure at standard height of 33 feet)

Basic Wind Speed	Pressure q_s
70	12.6
80	16.4
90	20.8
100	25.6
110	31.0
120	36.9
130	43.3

WIND LOAD

OVERALL HEIGHT (AGS)	EXPOSURE		
	D	C	B
0-15	24.52	18.70	10.94
15-20	25.58	19.93	11.82
20-25	26.46	20.99	12.70
25-30	27.17	21.70	13.41
30-40	28.58	23.11	14.82
40-60	30.52	25.23	16.76
60-80	31.93	26.99	18.35
80-100	33.16	28.40	19.93
100-120	34.05	29.46	21.17
120-160	35.63	31.58	23.11
160-200	37.04	32.99	25.05
200-300	39.34	36.16	28.75
300-400	41.28	38.63	31.75

MATERIAL SPECIFICATIONS

PIPE SECTIONS - ASTM A-36 $F_y = 36 \text{ KSI}$
 STEEL - ASTM A-36 $F_y = 36 \text{ KSI}$
 TUBE SECTIONS - ASTM A-46 $F_y = 46 \text{ KSI}$



[Handwritten Signature]
 11/30/00

SECTION MODULUS FOR 3x3x0.065 WALL MECH.
 TUBING ID = 3(0.065)2 = 2.970

$$I_1 (3 \times 3) = \frac{bh^3}{12} = \frac{3^4}{12} = 6.75 \text{ in}^4$$

$$I_2 (2.97 \times 2.97) = \frac{(2.97)^4}{12} = 5.6533 \text{ in}^4 \quad c = 3 \frac{1}{2} = 1.5$$

$$I_{\text{TUBE}} = 6.75 - 5.6533 = 1.0961 \text{ in}^4$$

$$S_{\text{TUBE}} = \frac{1.0961 \text{ in}^4}{1.5 \text{ in}} = \underline{\underline{0.7307 \text{ in}^3}}$$



[Handwritten Signature]
 W/Bolan

PREPARED BY DKJ DATE 11/30/00 CLIENT BAKERSFIELD WELL & PUMP FILE 891-1

CHK'D _____ DATE _____ JOB _____ SHEET 1 OF 1

KRIEGER & STEWART INCORPORATED

SOUND WALL PANEL FRAME DETAIL DRAWINGS



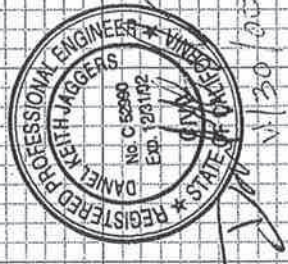
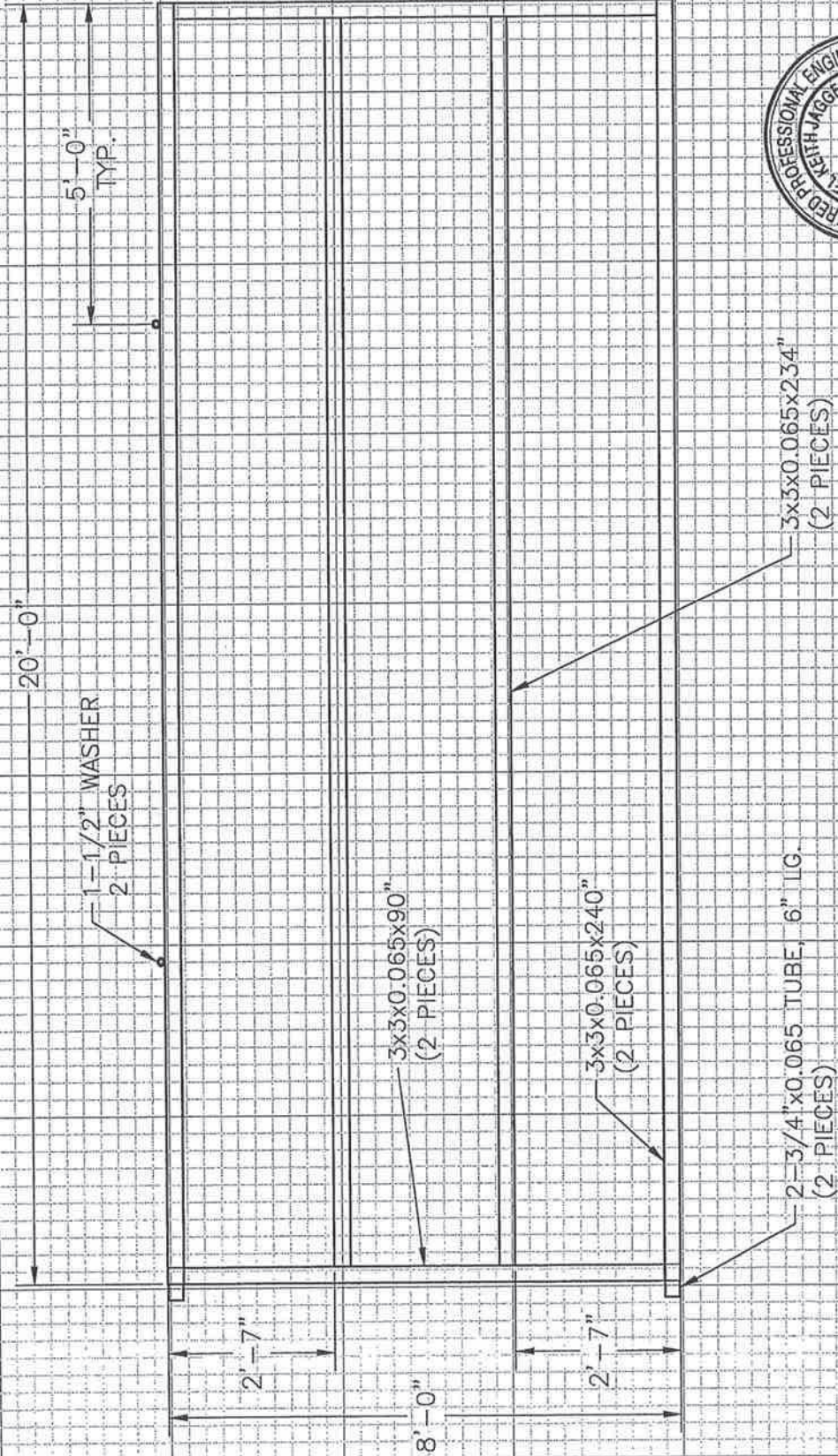
11/30/00

BY: DANIEL K. JAGGERS
11/30/00

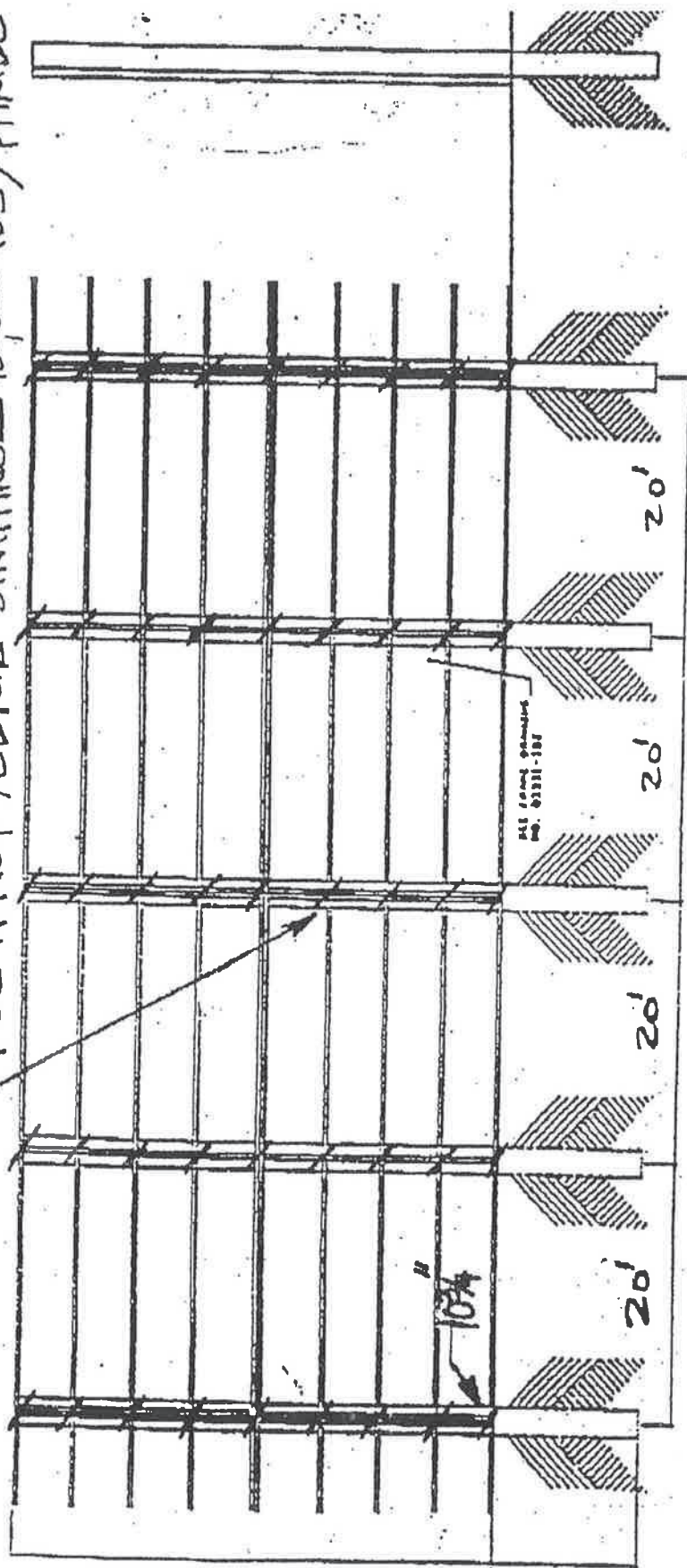
KRINGER & STEWART INCORPORATED

D:\aengpaper.dwg 7-19-99 4:28:26 pm EST

TYPICAL 8'x20' SOUND WALL PANEL FRAME



(10) 1/2" X 600 lb (BREAK STRENGTH) OR 1200 lbs / LOOP POLYPROPYLENE STRAPPING = 12,000 lbs / PANEL



ZIM INDUSTRIES 4045 E. Lincoln • Fresno, CA 93720
 Ph. (209) 834-1851

SCALE: NONE	APPROVED BY:	DRAWN BY:
DATE: 5-22-96		REVISED:

LAY OUT OF 24' TALL SOUND BARRIER

MATERIAL: 8' TALL X 20' LONG PANELS WITH 10 3/4" O.D. POLES

DRAWING NUMBER:

L

Internal policies and/or procedures used to assure quality control

Zim Industries, Inc has developed internal policies and procedures that have been in place to assure that we carry out the goals of our Quality Statement. While the quality policies and procedures cover company-wide activities that affect product and service quality, the principles of consistency in our process and improving continuously apply broadly throughout Zim Industries, Inc. We believe these principles are fundamental to serving our customers well and to being a successful company long-term.

It is our belief that our Quality Statement gives us a useful platform from which to continuously improve the way we operate. This establishment of a formal quality system demonstrates something important to our customers, Zim Industries' commitment to quality.

Zim Industries' Official Quality Policy

We will deliver products and services that meet or exceed our customers' expectations. To do this, we will:

- Identify our customers' expectations and provide employees with the resources needed to exceed those expectations on budget and by deadlines
- Assure that our employees, suppliers, and subcontractors understand and support our Quality Policy
- Continually improve our skills and our processes by employee improvement and training
- Continually implement new rules and procedures due to recent changes and make continuous improvement an everyday matter
- Conduct meetings held to discover problem areas
- To provide data on where problems are likely to occur, helping to identify cause-and-effect relationships
- To communicate information in rapid, accurate and simple ways. This can only be achieved by exchange of ideas and collaborative work between Zim Managers, Zim Employees, and our customers

Compliance Statements

Zim Industries, Inc. has a reputation of completing wells to the satisfaction of the customer and completing our projects on time and on budget. We believe that due to our experience of drilling hundreds of deep municipal water wells; our impeccably maintained and extensive variety of drilling equipment; and our experienced work force, Zim Industries drills the highest quality water wells in the industry.

As with most of our projects, there is a Bid Schedule with Unit Pricing for specific Line Items. Most budget changes are due to changes from bid quantities only and could result in an increase or a savings to the City. Therefore, most price differences from budget to actual billing are due to line item quantity adjustments as directed by the City. We also have a reputation for not requesting Change Orders and Time Extensions for every little matter that comes up in a project. Change Orders are only requested for quantity adjustments (could be an increase or a decrease) or for material changes to the specifications.

Zim bids our projects at a competitive and fair price. Our pricing proposals are bid high enough to perform the project requirements and maintain the highest level of quality while not taking short cuts. We don't bid too aggressively low and we don't take short cuts. In addition, Zim does not bid a project too aggressively low just to get the job and then request change orders to increase profits on the project. We take pride in bidding the projects right; completing the projects with the highest level of quality; and we complete the work on a timely basis, on schedule, and within budget.

Quality Control Procedures

Quality Control is a continuous process embedded within our sales / customer service departments and operations departments of Zim Industries, Inc. (Zim). We are continuously striving to ensure that our products and services are delivered to our customers in accordance with our high quality standards. These standards are achieved and maintained throughout our organization for all of our products and services including: 1) water well drilling, water well construction, water well development and water well testing; 2) water well repairs; 3) water well deepening; 4) water well rehabilitations; 5) water well destructions; 6) water well pump sales and installations; 7) water well pump repair projects; 8) irrigation systems; and 9) concrete lined ditches. Zim provides products and services for a wide range of water services to municipal, corporate and private farming operations. Zim's focus is to provide municipal, corporate and private farming operations with efficient irrigation and pump delivery systems designed to deliver the required GPM water flow rates needed for their unique application (water supply system, trees, and row crops). Below is a brief summary of the quality control policies and procedures performed by our employees during the difference phases of performing work for our customers.

Sales / Customer Service Quality Control Procedures

Pre-bid job walks and / or project jobsite visits are performed by our sales team to meet with our customers and evaluate the project and jobsite. We have a conversation with our customer to identify the products and services required on the project, fully understand the project jobsite location, identify any potential hazards located on or near the project jobsite, and understand the project's completion schedule timeline.

Operations Quality Control Procedures

1) Pre-Planning

All projects start off with either a pre-construction meeting or a meeting with our customer to review the scope of work, project materials, work schedule and jobsite before our work on the project commences. Any necessary modifications or clarifications are made before work begins to ensure that the quality of our products and services is communicated to our customer and maintained throughout our performance of work. All submittals are sent to our customer /project engineer by our sales team and the appropriate manager for approval prior to ordering the project materials and commencing the project. Once the approved submittals are received by the sales team and project manager, our project manager orders the approved materials and commences the project.

2) Performance of Work

All projects are managed by our management teams located in our two divisional offices located in Fresno, California and Bakersfield, California. Our management team at each location consists of our operations manager, who manages our pump manager, water well drilling manager and shop manager.

Our pump manager manages: a) our field pump crews performing all work on our pump, well rehabilitation, irrigation system, and concrete lined ditch projects; and b) our field test pump operators performing all work on water well test pump development and water well pump testing. Each field pump crew consists of three employees: a pump installer and two pump installer helpers. Each field test pump operator consists of one employee: a test pump operator. Our pump installers and test pump operators are our field supervisors. They insure that the work is performed in accordance with the project work orders issued by their pump manager and the relating contract documents executed by the customer and Zim Industries, Inc. The pump manager and sales team order the materials from our

suppliers in accordance with our work orders and our pump installers coordinate the delivery from the supplier and the receipt of these materials at the project jobsite for installation. The pump manager and sales team are both verifying that the correct materials are being ordered, delivered and installed on each project. Some examples of the quality control procedures that each pump installer and test pump operator perform for our customers during our field work is listed below.

Each pump installer compares the materials load against the work order and verifies that the correct materials are loaded and that they are in excellent condition. In addition, each pump installer has an equipment and tools checklist to ensure that the necessary equipment and tools required to complete the project are loaded and taken to the jobsite. During pump installation, the pump installer insures that the column pipe, tube and shaft are all properly tightened when threading the pump together. During top head completion, accurate measurements are taken to ensure that the proper stick-up of top tube and head shaft is achieved. Before powering the electric motor up to start-up, the pump, the pump installer checks rotation of the motor to ensure that it has been wired correctly. Finally, at start-up the lateral of the pump is set to ensure that the bowl impellers do not drag and operate correctly. Daily logs of hours of work performed on each task are kept and maintained by each pump installer along with their daily time cards. The daily logs summarize in detail the actual work performed in hours during the day for each project. The daily log and timecard also describe the specific tasks performed during the day. These records are reviewed by the pump manager on a daily and weekly basis to ensure that the specified work is being properly executed and performed on the assigned project.

Our well drilling manager manages: a) our field well drilling crews performing all work on our water well drilling, water well construction, water well repair, water well deepening and water well destruction projects; and b) our well drilling tool pushers. Each well drilling tool pusher assists the well drilling manager in managing the field well drilling crews. Each field well drilling crew consists of three employees: a water well driller and two water well driller helpers. Each drilling rig operates 24 hours a day and is operated by two 12-hour split shifts each day. Therefore, each drilling rig is operated by two field well drilling crews. Our water well drillers are our field supervisors. They insure that the work is performed in accordance with the project work orders issued by their well drilling manager and the relating contract documents executed by the customer and Zim Industries, Inc. The well drilling manager and tool pushers order the materials from our suppliers in accordance with our work orders and our well drillers coordinate the delivery from the supplier and the receipt of these materials at the project jobsite for installation. The drilling manager, tool pushers and well drillers are all verifying that the correct materials are being ordered, delivered and installed on each project. Some examples of the quality control procedures that each water well driller performs for our customers during our field work is listed below.

Zim is known in the water well drilling industry for our high-quality water wells. We have a large base of highly satisfied customers due to quality of the products and services that we provide. We drill, construct and develop water wells with high specific capacities throughout the western United States. We construct straight and near sand-free production / ASR injection wells that prolong the life of the owners' pumping equipment. Zim ensures well straightness during the drilling phase of water well construction by using the proper drill stem weight and by constantly monitoring any borehole deviations. We ensure near sand-free wells by matching the gravel pack to the existing formation through the use of sieve analysis during the well design phase of well construction. Zim also promotes the use of high quality materials during the construction phase of the water well project to prolong the well life. By using higher quality gravel pack material (i.e. Colorado Silica); we can construct the water

well with a more round and efficient gravel pack less susceptible to closing up. By using a higher quality, larger thickness or different type of casing material (i.e. Roscoe Moss, Johnson Well Screen), we can construct the water well with casing that is less susceptible to rusting out or dissolving due to electrolysis. Where specified we ensure good water quality in the wells we construct by performing accurate water quality testing during the aquifer zone-testing phase of water well construction. Zim utilizes highly qualified personnel and highly maintained equipment managed by a management team possessing the technical knowledge and experience to properly construct any water well project. In addition, Zim has the capability to construct water wells on tight job sites and to provide sound control where necessary. Zim works with the customer and engineer to properly design the water well for each specific location. In the past, we have constructed double-cased wells, under-reamed wells, ASR injection wells, and wells with seals and blank casing to block the production of water with poor quality or containing contaminants. Zim utilizes the flooded air reverse rotary method to construct water wells. By utilizing this method along with a proper drilling fluid system, Zim ensures that the borehole walls are coated to maintain a drilling fluid system with a proper sand content, mud weight, and Ph level. In addition, this fluid systems prevents water loss from occurring into the existing formation of the aquifer keeping the walls clean and stable. Zim has provided water well drilling services for the installation of potable water production / ASR injection wells with dimensions as large as 10 feet in diameter or as deep as 3000 feet in locations throughout the Western United States. We have the capability and capacity to complete projects with dimensions as wide as 10 feet in diameter or projects as deep as 5,000 feet. Daily logs of hours of work performed on each task are kept and maintained by each water well driller along with their daily time cards. The daily logs summarize in detail the actual work performed in hours during the day for each project. The daily log and timecard also describe the specific tasks performed during the day. These records are reviewed by the water well drilling manager on a daily and weekly basis to ensure that the specified work is being properly executed and performed on the assigned project.

Our shop manager manages our shop machinists, mechanics and welders performing: a) all support work for our water well drilling, pump, water well rehabilitation, irrigation system, and concrete lined ditch projects; and b) repair and maintenance work on our vehicles and equipment. All shop employees insure that their work is performed in accordance with the project work orders issued by their shop manager. The shop manager orders the materials from our suppliers in accordance with our work orders and the shop manager coordinates the delivery of these materials from the supplier and the receipt of these materials at our shop for installation. The shop manager, machinists, mechanics, and welders are all verifying that the correct materials are being ordered, delivered and installed on each project. Some examples of the quality control procedures that each machinists, mechanic and welder perform for our customers during our shop work is listed below.

Each machinist receives a work order from the pump or shop manager to perform work on a project in our shop to make a pump or drilling component. The work order is matched up with the materials delivered and the correct materials are machined to make the requested component. The completed component and its corresponding work order are reviewed by the shop or pump manager to ensure that it made correctly. The completed component is transferred to the appropriate pump installer or well driller for installation.

Each mechanic receives a work order from the pump or shop manager to perform work on a vehicle or piece of equipment in our shop (repair, maintenance or 90-day inspection). The work order is matched up with the materials delivered and the correct materials are machined to make the requested repair, maintenance or inspection. The completed repair, maintenance or inspection vehicle or piece of

equipment and its corresponding work order is reviewed by the shop or pump manager to ensure that it was performed correctly. The completed vehicle or piece of equipment is transferred to the appropriate pump installer or well driller for use.

Each welder receives a work order from the pump or shop manager to perform work on a project in our shop to fabricate a pump or drilling component. The work order is matched up with the materials delivered and the correct materials are machined to make the requested component. The completed component and its corresponding work order are reviewed by the shop or pump manager to ensure that it made correctly. The completed component is transferred to the appropriate pump installer or well driller for installation.

Daily logs of hours of work performed on each task are kept and maintained by each machinists, mechanic and welder along with their daily time cards. The daily logs summarize in detail the actual work performed in hours during the day for each project. The daily log and timecard also describe the specific tasks performed during the day. These records are reviewed by the shop manager on a daily and weekly basis to ensure that the specified work is being properly executed and performed on the assigned project.

3) Project Completion

At the end of each project a project completion report is completed by the well driller, pump installer, test pump operator, machinist, mechanic and welder that was assigned to the project. On well drilling projects, the well driller provides the necessary information to file a well completion report, well alteration report, or well abandonment report. The appropriate report is completed by the water well drilling manager and filed with the County in which the project was permitted and completed. On pump projects, the pump installer completes the work order by listing all the work performed on the project and all the materials used on the project. These completed work orders are reviewed by the pump manager to ensure that the project work was performed as specified in the work order and it is approved and billed by the pump manager once the project is complete. On well rehabilitation projects, the pump installer turns in the project's completed daily logs and work order to the pump manager. These completed work orders and daily logs are reviewed by the pump manager to ensure that the project work was performed as specified in the work order and it is approved and billed by the pump manager once the project is complete. Machinists, mechanics, and welders turn in their completed work orders and time cards to the shop manager. These completed work orders are reviewed by the shop manager to ensure that the project work was performed as specified in the work order and it is approved and costed to the correct project or equipment number by the shop manager once the project is complete. The project manager and the sales team review the project completion report and ensure that the project has been completed to the specifications that the work order and contract documents require. The project manager and sales team then communicate with the customer that the project is complete and provide the customer with an invoice and project completion report.

These quality control policies and procedures are performed on all projects for all of customers from multiple industries and geographic locations. We provide water related products and services to customers in the agricultural, municipal, industrial, commercial, housing, mining, private water company, and oil & gas industries. In addition, we provide these products and services in multiple states located in the western Unites States including: California, Nevada, Utah, Arizona and New Mexico.

STANDARD GUIDELINES FOR DESIGN AND PROPER CONSTRUCTION OF A WATER WELL

presented by:

Zim Industries, Inc.

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STANDARD GUIDELINES FOR DESIGN AND PROPER CONSTRUCTION OF A WATER WELL

SITE SELECTION

Site selection should be made with consideration being given to probable water quality and volume, followed by location of a power source and then transportation of water to the desired area.

Available driller and electric logs of the surrounding area should be obtained, including oil and gas logs. (The probability of locating a successful, deep well below the Corcoran Clay may often be as high as 90% based on research and review of existing logs.)

After the site location has been determined, specifications that follow accepted industry standards should be obtained and used as a basis for the well contract and construction. (Specifications are available from many sources, such as the Bureau of Reclamation, various governmental agencies, and geologist or engineering firms. All employ similar industry standard procedures that have been developed and proven successful over the years.)

PILOT HOLE (TEST HOLE)

Pilot holes should always be drilled and water samples collected and analyzed if water quality is of a questionable nature.

A pilot hole should be drilled, samples of drill cuttings taken at 10' intervals (or at formation changes) and sieve analysis performed on the sands. An electric log of the pilot hole should then be performed to identify footage and characteristics of producing sands with some indication of water quality. Based on a review of this information, a proper well design can be achieved.

After sands and electric log analysis, the pilot hole should be properly abandoned, if the pilot hole indicates the formation will NOT support a well of sufficient capacity or water quality.

A word about shallow pilot holes....It may be necessary to drill a shallow pilot hole, analyze sands and the electric log of the proposed well site above the Corcoran Clay to determine water quality and production capacity. Water samples may be taken above the Corcoran Clay in a standard rotary test hole by installing a small diameter, 2" pipe, and pumping water samples from the target zone.

PRE-CONSTRUCTION CRITERIA

The factors that should be considered for shallow and deep well selection design are:

1. amount of water desired
2. pumping cost analysis
3. life expectancy of the well
4. effects on land value created by a usable ground water supply

PRODUCING WATER FROM BELOW CORCORAN CLAY

Proper depth selection of a well will greatly affect producing capacity over the life of the well by as much as 1000 gpm to 1200 gpm. For instance, using an approximate value of 10 gpm water production for each one foot of producing sands below the Corcoran Clay, you can determine how many feet of producing sands should be incorporated into the final well depth, thereby constructing a well of maximum capacity, efficiency and longevity. Therefore, for every 100' of producing sands added to the well depth, the additional productivity could be as high as 4 acre feet per day. Thus, the added footage of producing sands incorporated into the final well design may be equated as usable "water-in-the-water-bank" or "money-in-the-bank."

At this point in the pre-construction decisions, consideration should be given as to how much of the potential producing sands should be incorporated into the well design, remembering that every foot of saturated sand adds value to the land.

For example, a 1200' well may initially produce a sufficient amount of water to be economically feasible. However, if there are producing sands below 1200' that can be incorporated into the well, the well would produce at a higher specific capacity, lower pumping cost, and would be able to tap more usable water. This means longer usable well life, more efficient pumping cost, and increased land value.

During the initial planning stages and continuing through the well construction, as you gain more information, is the proper time to determine well depth. If a 1200' well is completed today and at a later date a 2000' well is needed, it will be necessary to either drill a new well or go to a much greater expense to deepen the existing 1200' well.

GRAVEL PACK

Appropriate gravel pack **MUST** be used and placed correctly to obtain maximum well efficiency and production.

In the University of California Bulletin No. 1889, titled "Water Well & Pumps: Their Design, Construction & Maintenance," the following information is referenced:

1. Grain size distribution curves are drawn for material in each water producing zone.
2. Grain size distribution curves are used to identify the aquifer with the finest material.
3. The 70% retained size of the finest aquifer material is selected as a basis for design. The gravel pack to retain 70% of the aquifer material should be 4 to 6 times larger than the aquifer material. For uniform fine material, the factor should be four (4); for nonuniform coarser material, five (5); and for highly non-uniform material including fines, six (6).

The selection of gravel roundness is extremely important because it allows the use of the proper gradation to fit the finer formations and retain the maximum porosity and permeability of the gravel pack to achieve maximum well efficiency. Two suppliers who come closest to meeting the roundness criteria are "Colorado Silica" and "Heart of Texas." Both are expensive compared to less suitable gravel (due to availability and freight), but their use will pay back the added cost many times over during the life of a well.

CASING & SCREEN

Casing and screen diameter must be adequate to allow the desired amount of water to pass without friction loss. The pump chamber casing must be large enough to allow the required size column pipe and bowl assembly to be installed freely in the well to the point of anticipated future needs.

Screen opening design should retain 80% to 90% of the gravel pack. The most commonly used perforations are louvered and continuous V slot wire-wound casing. Both are resistant to gravel pack plugging and perform efficiently with most gravel pack installations.

Millslot perforation is also frequently used, but a much higher percentage of plugging by the gravel pack occurs with millslot because the perforations are straight rather than louvered or "V" shaped. Millslot can be used in some areas, but in most instances it is unwise to use it.

Although additional slot openings can be added to compensate for plugging, millslot casing is not considered as efficient as louvered or wire-wound. A word of caution....if millslot is used exclusively in a well, it will generally result in lower well efficiency, and create greater drawdown thereby causing higher pumping cost for the entire life of the well.

However, if a combination of millslot in the lesser producing areas and continuous 'V' slot wire-wound in the more productive areas is used, the combination can prove satisfactory.

CUTTING & SETTLEMENT PITS

The drill cutting and settlement pit must be excavated to dimensions adequate to permit sufficient time for fine sands to drop out of the viscous fluid as the cuttings are discharged into the pit and to pass the full length of the pit before returning to the well bore.

If fine sands (fines) are not settled out (or removed mechanically by a de-sander) they will return to the well bore and deposit fines on the walls of the well, plugging the water passages and creating irreparable damage.

In Ground Water and Wells, published by Johnson Filtration Systems, Inc., the author suggests a reverse rotary pit system should be three times the volume of the hole in order to properly settle solids from the drilling fluid.

EXAMPLE:

A 28" diameter well bore that is 1200' deep will hold about 38,000 gallons of water. Using "Johnson's" formula, a pit large enough to accommodate about 115,000 gallons is needed. A pit 70' long x 10' wide x 8' deep will hold about 42,000 gallons of water.

Using two pits of this dimension side-by-side will process approximately 84,000 gallons of water. The cuttings laden water will travel 70' across one pit and 70' back through the other pit before returning to the well bore. This distance allows considerable settlement time, and in most cases, will settle out fine sand.

To prevent drill hole walls from plugging, the fluid system must be maintained with a sand content of below 2% at all times. This type of plugging is often caused by less qualified contractors using poor drilling procedures or conventional rotary drilling methods. Then to compensate for this. They use a gravel pack many times coarser than the formation demands resulting in void areas between these coarse sand or gravel particles, not only large enough to pass the sand deposited on the wall into the production water, but also too large to sufficiently stabilize the sands on the drill hole wall, thereby continually passing producing fines into the water. This creates what is commonly known as a "sand pumper."

Pits of sufficient size, proper construction methods and the correct selection of gravel pack size is vital to the efficiency of a well and cannot be over emphasized.

CONVENTIONAL ROTARY VS REVERSE ROTARY DRILLING METHOD

In conventional mud rotary drilling, damages due to formation plugging will occur without fail because the sand laden fluids must pass by the walls to reach the surface and therefore will irreversibly plug some of the production zones, even under the best of conditions.

Knowing this, one can make the assumption that wells should be drilled by the reverse rotary method, because the efficiency of the wells drilled by the conventional rotary method usually cannot approach the efficiency of wells drilled properly by the reverse rotary method. Even though installation costs may be less expensive, it will cost much more during the entire life of the well due to the increased pumping cost.

SAND PRODUCTION

Sand production can easily be maintained at 5-parts per million or below, if proper design and construction methods are performed. This amount of sand production will not noticeably affect pump bowl bearing life and should be the goal of all gravel packed wells. However, some agencies permit 10-parts per million, which will noticeably affect pump bowl bearing life. Therefore, a well that produces 10-parts per million sand is of lesser value than a well that produces 5-parts per million sand.

DRILLING FLUID (MUD)

Commercial drilling mud is necessary much of the time to control the Corcoran Clay, although it increases the difficulty of keeping the sand content in the drilling fluid returning to the well bore below the 2% level.

SLOPE TEST

Deep well contracts should require an EASTMAN or TOTCO slope test to be run every 100' to the deepest anticipated pump setting depth.

The well bore should not be allowed to drift more than one half degree at any point above pump setting depth. If drift occurs, the contractor should correct it back to half a degree maximum before further advancement of the well bore.

This correction will prevent "doglegs" in the well bore and is a reasonable requirement that will greatly extend pump-bearing life, and prevent well casing breaks caused by stress created by the "doglegs." Many casing failures can be attributed to "doglegs" in the well bore.

DRILL HOLE DIAMETER

Drill hole diameter should be at least 8" larger than screen diameter but not over 12" larger than screen diameter. Drill holes can be too large, creating a gravel pack so thick that development procedures cannot reach the drill hole wall to clean it.

Again, it is pointed out that at no stage of the drilling procedure should the fluid returning to the well be allowed to contain a sand content above 2%. If the sand content goes above 2%, sand will re-deposit itself on the drill hole wall and be trapped by the gravel pack (when proper size gravel pack is used) and be impossible to remove during the development process, thereby creating permanent

well damage, resulting in lower well efficiencies. And, as stated above, when improper gravel pack design is used to compensate for an improperly constructed well, the result is a sand pumper.

GRAVEL INSTALLATION

Gravel may be successfully poured slowly from ground surface into the well annulus only on shallow wells completed above the Corcoran Clay. However, any gravel pack installed below the Corcoran Clay should be pumped through a tremie pipe set to a depth at the bottom of the screen before starting gravel installation, and slowly withdrawn as gravel is pumped and fills the annulus. The gravel tremie pipe should be removed one joint at a time in order to monitor gravel filling level and ensure all areas are completely filled with the gravel.

A circulation pipe should be installed inside the well casing/screen to the bottom of the perforations, and circulation of 250gpm of water should commence prior to gravel installation and continue during the entire gravel packing process. The fluid used to pump the gravel should be clean water because this method transports the silts and clays that are removed from the wall by the scouring action of the gravel going into place. These silts and clays then enter the well screen and are pumped to the surface and settle out in the settling pit, leaving the gravel pack relatively clean and ready for the development process.

AIRLIFT/SWABBING

Following the completion of the gravel pack procedure, the well should be airlift pumped to remove the remaining drilling fluid from the annulus in the producing zones until the water is relatively clean.

The circulation pipe should then be removed from the well and two close fitting swabs (about 5' to 6' apart with sufficient intake holes between the swabs) installed on the circulation pipe.

While the airlift pump is operating, the swabs should then be lowered and raised as fast as possible for about 30 minutes per joint of casing, starting at the top of the screen and adding a joint each 30 minutes until the bottom of the well is reached. The bottom joint should then be swabbed until the pumped water is relatively clean and this should be continued, removing one joint at a time and repeating this procedure until each joint is swabbed to the top of the screen and the final water produced is relatively clear.

The walls will then be clean enough to produce, and ready for final development by pumping and surging the well at high rates. The mechanical swabbing will clean the thin sand layers of sand from the well bore wall that will produce small amounts of water when mechanically swabbed clean, but will remain unproductive for the

entire life of the well if not mechanically swabbed clean. In most cases pump development alone will leave the weaker areas undeveloped and unproductive.

Often times, a combination of many small zones properly swabbed clean can increase the well production and efficiency (if they have not been damaged during well construction and are correctly cleaned during initial well development).

A word of caution....if only pump development is performed, these fines can remain sealed against the well bore walls for the life of the well and the thin sand layers that could have had some low flow production rates had they been properly swabbed and pumped would now make no contribution.

PUMP DEVELOPMENT

The high capacity pump and surge development process should follow the airlift/swabbing and be started at 750gpm to 1500gpm on large capacity wells, pumping at one rate until the water being pumped is relatively clear. The pumping level should be monitored during all pumping.

When the pumped water is relatively clear, the pumping rate should be raised in increments of approximately 500gpm and the process continued at each rate until the pumped water is again relatively clear.

This procedure should be continued in 500gpm increments until the top rate of the pumping equipment, or top rate of well capacity, is reached and the water is relatively clear and the specific capacity (gpm per foot of drawdown) stabilized.

The pump surging process is performed next but should not begin until the pumped water is relatively clear, because surging with dirty water can permanently damage the well.

During the pump surging process the pump should be stopped, the water allowed to flow back into the well, and then the pump restarted again, and the water pumped until it is again relatively clear. This procedure should be continued until the water no longer is dirty looking. When the water is clear the well should then be surged several times (possibly five), just bringing the water to ground surface, then pumped until again until relatively clear.

This process is continued slowly, increasing the number of back surges each time until the water remains clear after surging and the pumping level is stabilized.

The well is then fully developed at that particular pumping rate, and when the specific capacity stabilizes. Many times, a well developed at 4000gpm is capable of further development and higher capacities if higher pumping rates can be achieved. However, the special equipment required to perform higher capacity rates is often not readily available.

PUMP TESTING

The procedure for pump testing for pump design is as follows:

1. After the well has set idle 8 to 12 hours following development, the step test should be performed by pumping at a minimum of three (3), and preferably four (4) rates, with the pumping time being three hours minimum at each rate. The highest rate should usually be at the highest rate at which the well was developed, with drawdown and flow rates recorded at minimum 5-minute intervals during the first 30 minutes of each pumping rate, and at least 30-minute intervals for the remainder of each rate. Recovery readings should be taken at minimum 5-minute intervals for the first 30 minutes after pump shutdown, and at least 30-minute intervals for four (4) to eight (8) hours.

2. After the step test is complete, a 24-hour pump test should be run at the rate calculated for the well based on the results of the step test. It is very important that a knowledgeable individual perform the calculations to accurately project sustainable yield.

It is in the best interest of the owner to employ a capable, experienced firm that is able to design and monitor the construction, the material installation, well development, and the pump testing and pump design.

This should be someone independent of the well construction contractor and pump supplier, in order to provide the owner with an unbiased and impartial overseer.

WELL EFFICIENCY EFFECTS ON PUMPING COSTS

If proper construction procedures are used, a well efficiency as high as 94% can reasonably be expected. (There is a case history of a well that is 95% efficient at 2250gpm with a 46' drawdown.)

Based on case histories, we can assume that many new wells in the area have efficiencies near 50%. Using a 50% effective rate as a basis for comparison, a well with a 87.4' drawdown at 2250gpm would have an additional 41.4' drawdown penalty for inefficient construction of the well.

Assuming a power rate of .075 KWH and a pumping plant efficiency of 68%, the inefficiency in the drilled well would cost \$4.641 per acre foot pumped, which would be \$9,299.03 for a well pumped 200 days, or \$13,948.66 for a well pumped 300 days, and this additional cost occurs every year for the life of the well.

These figures do not assume any interest expense or inflation in energy costs over the 30-year life of the well, although one must assume that interest expense and inflation would greatly increase the penalty on an inefficiently constructed well.

APPRAISAL

If you assume a water table decline of 10' per year, you can roughly project the total acre feet that can be pumped from a well (assuming an estimated value for recharge.)

The test of a well should be determined by several things. Some of the most important are:

1. desired life expectancy of the well
2. appraisal value of the land
3. power cost (power/fuel cost)
4. water quality

FUTURE ECONOMIC CONSIDERATIONS

In designing a well consideration should be given concerning the use of top/bottom water. You can only use the bottom water if you have the original well deep enough. The water below the depth of the well has a much less value when it is not tapped by the original well; whereas, if that same water is tapped by the original well, (although possibly not immediately being pumped) has much value in the future. Although the water is available, if it is not tapped by the original well, it has no value to that particular well.

The decision on how much of the available producing aquifer to incorporate into any given well design should be based on expected well life and the affect on land appraisal value. The shallow well can be looked at as a band-aid solution, the deeper wells would be a valuable investment in that particular property.

Most shallow wells can be considered as short term and a temporary "fix" solution to a long term problem. However, in some instances and conditions they make the most economic sense (ie. getting through a drought, providing water quality is usable.) Unfortunately, in some areas such as the Westlands Water District, long term supplies are more important. The previously discussed water sample tests taken from test holes should be one of the deciding factors in determining whether the shallow waters above the Corcoran Clay should be considered.

