

## Who's Who ? of Why ?

Sam E Wood - Mary Payne's Father

I was born on a farm near what is now the city of Normal, State of Illinois, October 11th, 1872. My parents came to Colorado in 1873 and settled at a small mining camp in Clear Creek County, called Mill City, now known as Dumont.

There I spent my childhood days and received what common schooling was available. In 1886 we moved to Golden where I entered the Golden High School and graduated from there in May 1889. The High School course at that time was a three course.

I entered the Colorado School of Mines in the fall of 1889, enrolling in the Mining Engineer Course; which I pursued for three years, making good grades in all my work, except Calculus, in which I failed. During the summer of 1893 I worked for H. W. Hardinge at the Golden Smelter as Assayer. In fact this job was an education in many ways. I was janitor, bucked samples, errand boy and many other things besides assayer and chemist, all for the munificent salary of \$75.00 per month. However I received some valuable instruction in sampling high grade matte and bullion and checking against the refinery; also experience in slag analysis. The smelter was operated for the purpose of rerunning the old slag dumps, and when silver slumped we had to quit.

Owing to my failure in Calculus and the desire to become a metallurgist after my summer's experience, I decided that I would go back to school and take the Junior year metallurgy course, which I did. The following year<sup>1894</sup> I expected to finish the course but became short of funds before the Xmas Holidays and dropped out, came to New Mexico, married and never felt able financially to go back and finish.

During my vacations while attending High School I worked at the Brick Works at several jobs, and spent the summer of 1889 working for Phil R. Stanhope at Dumont as a mucker at the Silent Friend Mine. During the summer of 1890 I again worked for Stanhope, hand sorting at the Senator Mine, also near Dumont. This job consisted in separating the vein material from occasional lumps of Galena, and incidentally busting open an unwary finger much oftener than was desired.

The rest of my vacations except the one with H.W. Hardinge, was spent at the Golden Pressed Brick work, where I acquired the habit of walking on my hind legs, by aid of a wheelbarrow full of brick.

In November 1895 I went to Cripple Creek and stated to work for W.B. Milliken '93, U.S. Deputy Mineral Surveyor, as calculator. Cripple Creek had already become a net work of conflicting claims and figuring conflicting areas, intersections and ties day after day became a duty rather than a pleasure. While I still revere Vega and his seven place tables, yet I cannot say that I am eternally devoted to him, altho he is still my friend. I worked for Milliken in the office and in the field until February, when I entered into a partnership with J.E. Benjamin at Gillett, Colo, with the understanding that I was to assist him when overburdened with assay work, and I was to do all the surveying that would be crowding its way into our office. We sat around most of the time watching each other starve to death until June 1896. I had forgot to mention that I had previously worked for Mr. Benjamin in his Assay Office in the Miners Building in Denver, during the summer of <sup>1895</sup>~~1895~~. At that time the Miners Bar served a splendid free lunch with each glass of beer (So I was told).

Leaving Gillett, Colorado, in June 1896, I came to Golden and went to work on my fathers fruit farm near Golden.

In December, I decided to pay my old chum, James Bowie '94 a visit at his home at Gallup, N.M. I landed in Gallup December 23rd, 1896 and immediately went to work in the mine of which Bowie was Superintendent, where I became a general utility man, laid track, drove a mule and weighed coal. February 1897 I resigned and went to work for the Crescent Coal Company as Superintendents Clerk, with the job of surveying and mapping their four mines during my spare time. This spare time generally consisted of many sleepless nights and Sunday Holidays.

During the summer of 1899 the American Fuel Company purchased the property and with the rest of the personal effects I was taken over and appointed resident engineer on full pay, \$90.00 per month.

September 12th of this year I was married to Annie S. Cunningham, a cousin of James W. Bowie.

The American Fuel Company made many improvements during the next two years and I gained much valuable experience in designing and erecting hoisting plants and tippie work, besides doing all the surveying and mapping work for the Company. O. C. Osgood was President of the Company and John T. Kebler General Superintendent.

November 1901, I decided to quit the coal mines and go in business for myself. I went to Silver City, N.M. and opened an Assaying and Engineers Office. Copper was up and business was good. In December I went to Santa Fe and took the examination for U.S. Deputy Mineral Surveyor. It was a stiff exam, lasting three days. Quinby Vance, Surveyor General at that time told me that I had

passed the best examination of any applicant heretofore taking the examination. I received my commission as U.S. Deputy Mineral Surveyor in due time and anticipated a wonderful business in the thriving district surrounding Silver City. In a very short time copper took a wonderful slump and soon went from 18¢ to 9¢. This completely paralyzed the mining industry and the Assaying and surveying profession soon became a precarious means of livelihood. In order to cut down the overhead and endeavor to exist until times became better I entered into partnership with the other assay office and we immediately began to starve together instead of separately.

This state of affairs continued until the summer of 1902 when I accepted a job as Manager of the Faywood Lead Company, at their property near Cooks Peak, Ralph C. Ely, Detroit Michigan was President of the Company. They intended to revolutionize the milling industry in the arid southwest by aid of the Hooper Dry Concentrator, which was being successfully used in concentrating graphite in the Ticonderoga district, by the Dixon Graphite Co. I had charge of erecting 50 ton mill, consisting of crude oil internal combustion engine, crushers, rolls, screen equipment, dryer, elevators, conveyors, concentrators, etc.; also mine development. The ore consisting of galena and lead carbonate is a replacement in lime, consisting of stringers and pipes; mostly stringers. Our milling ore carried from 5% to 7% lead, with low silver content.

When we started the mill my troubles began. We were short of power, our crusher capacity was too small, and our screens were eternally clogging, especially the finer sizes consisting of 100, 150, and 200 mesh silk bolting cloth; then our dryer was not a

success. However by ceaseless hard work we succeeded in getting out two cars of 50% lead concentrates. With the equipment we had our tailing loss was too great, and the mill was filled with a cloud of dust, a constant menace to the health of the mill hands. With the extensive changes necessary before the mill could be made a commercial success, the precarious financial condition of the company and the condition of my health owing to lead poisoning I sent in my resignation and left, March 1903 for Golden Colorado; back to the old home on my fathers fruit farm. During the summer of 1903 I designed and build an earth dam storage reservoir for C. C. Hemmingway, President of the First National Bank of Colorado Springs. In August 1903 I worked for the Church Ditch Company, running preliminary ditch lines and gauging stream flow on the western slope with the view of bring water from the western slope over Bertheoud Pass to the eastern slope.

My health having improved and the lure of the desert becoming irresistible I again journeyed to the southwest to examine and report on a mining prospect in the Steeple Rock Mining District 50 miles west of Silver City. The value of this property consisted principally in the high esteem of the owners; two old and decrepit prospectors who were wont to dream dreams of past success in the mining field. I returned to Silver City and after consultation with my partner, who was still continuing to starve to death in the assay office, we decided to close up the office and divide the liabilities. I then proceeded to Gallup with about \$1000.00 worth of I. O. U's, and seven dollars in change in my pocket. Landing in Gallup, I succeeded in getting a job laying track in the Weaver Mine, under the same Superintendent, for whom I worked as Superintendents Ukerk in 1898.

This was in March 1904. The Weaver mine was one of the properties of the Victor American Fuel Co. (The American Fuel Company having consolidated with The Victor Fuel Co. of Colorado with J. C. Osgood as President and George W. Bowen as General Manager, with home office in Denver. This was one of the best mines in the district with an output of 1800 tons per day. A Bit Boss, Boss Driver, mule drivers and three track layers constituted the company men pay roll inside the mine.

After working a short time as track layer, the engineer who was still working for \$90.00 per month as engineer and helping the mine clerk during his spare time in the evenings quit and I was offered the job but refused, as I was making more money in the mine. However they put me on the engineers work and kept me on the mine pay roll, paying me for overtime. I finished up the mine surveys, bringing mine maps up to date. By this time they secured another engineer and I went back to the mine.

In August 1904 the Company sent me to Carthage, N.M. to take charge of the engineering work there at \$110.00 per month and expenses. This work was under R. C. Hills, Geologist for the Victor American Fuel Company. This work consisted in mapping the Carthage Coal Field, tracing out faults, locating and logging diamond drill holes and locating existing mines. In addition to this work I installed hoisting equipment and screening plant for the mine. One of the pleasant tasks connected with this job was moving a 60 H.P. Economic boiler 200 feet up a 15% incline by means of two screw jacks, a pile of ties and three Mexicans, after which we put up a 50 foot smoke stack with a 20 foot gin pole and set of block and tackle. This was accomplished by building a crib in front of the boiler on which we stepped the gin pole.

We then hooked onto the stack just above center and succeeded in raising it to a vertical position along side the pole. Then by lowering the hitch to the stack and lashing to the top of the pole we could take a lift for a couple of feet, when we would again lower the lashing. The guy ropes anchored to Mexicans also assisted in keeping the stack in a somewhat vertical position. To make the job more interesting a stiff breeze was blowing steadily. I was sure one relieved and happy hombre when that stack was set down on the breeching and the guys securely anchored.

Then Mr. Hills sent me down from Gallup a second hand upright boiler, completely stripped, an American Deep Well Pump and a 1000 Gal wood stave tank, with orders to set up over deep well (churn drill hole) in order to furnish water for the diamond drill. I got a catalog and proceeded to find out what in my judgement would be necessary to put that boiler in condition in the way of fittings and equipment and sent out an SOS call for same. I had 480 feet of 4 inch pipe to put down that drill hole and practically nothing to do it with. We had a set of two and three rope blocks and a three quarter inch rope, some 7" x 12" x 20' mine timbers, two 36" stillson wrenches saw, hammer and axe. We burned holes thru one end of three mine timbers and made them into a tripod. We hung the blocks at the top run the fall line down to a snatch block at foot of one leg of tripod and then run the rope over to the foot of another leg which we had rounded off with the axe in order to take a hitch around it with the rope. We had no pipe clamps so we took two pieces of the 7" x 12" mine timbers hollowed them out with the axe to fit the pipe, burned holes thru with hot iron for two clamp bolts. In this way we let the pipe down until the pipe coupling rested on the



clamp blocks. Then came the anxious moments. After screwing on another length of pipe, we would have to open the clamps sufficiently to let the coupling thru; thus placing all the strain on the rope, while the coupling was passing the clamp. Finally with extreme care aided by divine providence, we succeeded in getting down the last joint without accident. Putting in the sucker rods was child's play compared with lowering the pipe. In the mean time the boiler fittings had arrived and with rare judgement we filled the various openings in the boiler shell with the correct fittings and apparatus. Then came the job of erecting the wood stave tank upon the raised platform we had prepared for its reception. Everything went well until we were ready to close the circle, when to our dismay we found that we were three staves short. Whether they were omitted from the shipment, lost in transit or used as fire wood by the freighter to make his morning cup of coffee, we did not know. After diligent search, we found enough two by fours to fill the gap, shaping them with saw, axe and jackknife. We steamed up the boiler, turned the steam into the pump and to our joy and surprise the outfit worked. With the aid of a few shovel fulls of dirt and caulking made from a spare undershirt, we succeeded in getting the tank to hold water. We then turned the PLANT over to the drill crew and went on our way rejoicing with the consciousness of a job well done.

During this summer we experienced one of the biggest floods in the history of the Rio Grande River. The river came up out of bounds and covered the surrounding country to the width of over a mile, taking out three pile bents in the center of the old rail road bridge over which we hauled coal and freight from



San Antonio, the rail road station, to Carthage. We were marooned. Our grub supply became low, and to top all this our colored cook left between two days. It became my privilege and duty to act as camp cook for ten hungry men for two long weeks. Strange to say I got by and still retained the friendship of the gang.

It then became my job to repair the bridge so that the teams could get over the bridge. Fortunately the rails on the old track were spliced together and did not go out with the piling. I also found some fine southern pine timber at San Antonio long enough to make stringers for a queen post bridge. I succeeded in finding a carpenter with a few tools, so we went to work and framed up the bridge. When we got everything ready we summoned all the natives in the neighborhood to help us place the bridge. We skidded the ends of the stringers across on the rails, set up the trusses, placed the needle beams, tie rods, etc, bridge stringers and decking all in one day, while the flooded Rio Grande roared along beneath us. In the mean time the company raised my salary to \$125.00 per month plus my living expenses.

In November I received a wire from headquarters to report to Gallup at once, and take over the engineering work there. Upon my arrival at Gallup I found that the company were opening a new mine, The Heaton. The camp was partly built, and work going on around the mine. The tipples partly built, machinery, timber and equipment scattered everywhere, with no plans or data to work to. Mr. Bowen, President of the company, informed me that it was my job to get this plant in shape as soon as possible. He didn't care how I was going to do it, but get it done. If there was any thing I needed to ask for it in a hurry and he would see that I got it.

This was a busy time, crowding the work during the day and getting out a set of workable plans during my spare evenings. Despite the cold disagreeable winter weather we made good time and completed the job to the entire satisfaction of the Company officials; who in appreciation raised my pay to \$140.00 per month. I was now Division Engineer of the New Mexico Division of the Victor American Fuel Company, with headquarters at Gibson, N.M.

During the next four years I was kept busy. I <sup>designed</sup> ~~designed~~ and supervised the erection of a new screening plant for the Weaver Mine, after which my salary was raised to \$150.00 per month. I also had charge of equipping and opening up the Navajo Mine. During my spare time I kept up the mine surveys and made a topographic map of the Gallup Coal Fields.

In May 1908, I was sent to the Heaton Mine as Acting Superintendent. This mine employed about 300 men and was producing 1100 ton per day; but was on the decline. By improving the haulage, opening up pillar coal that had been abandoned, developing the low coal by long wall workings and by perfecting a loyal organization we succeed in holding the production above 1000 tons for three years. I was now receiving \$175.00 per month free rent, lights and fuel.

By this time I could see no future for the mine and felt that I would be held responsible for the inevitable decline in production, so in September 1911 I handed in my resignation and bought a working interest in the Hart Hardware Company of Gallup, where I worked for a year. This was not satisfactory, so I sold out and opened up a plumbing, tinning and electric shop for my self. I was doing well, employing from eight to ten men, and making money. Became ambitious and decided that a hardware stock would

fit in fine with the shop, so I took unto myself a partener and we launched out into the hardware business. It was not a success. It took most of the profits of the shop to keep the hardware store going. When I left the mines I put my faithful Gurley Transit away among my souvenirs, but not for long, as some one was always asking me to do some work for them. Among them was the Diamond Coal Company who asked me to keep up their mine survey. I did this work nights and Sundays. The store work did not agree with me, it was too confining. So when the Diamond Coal Company asked me to take charge of the engineering work opening up and equipping their Coal Basin Mine in the spring of 1917, I sold my interest in the Hardware business and went to work for the Diamond Coal Co. I designed and superintended the erection of the head frame, screening plant, hoist, power plant, water works system; also laid out the camp and lighting system. The General Electric Company furnished the steam turbines and motors, C. S. Card Iron works the screens and Hendrie Bolthoff the boilers, hoists, cages and other machinery. You will find a cut of this plant on page 233 of Hendrie and Bolthoff's Catalog No. 99. This job was completed during the spring of 1918. The Diamond Coal Company did not have work enough to keep an engineer, so I decided to open up a custom engineers office in Gallup. I secured the appointment as Town Engineer for Gallup and have done the city work for them since then. Also have the engineering work for the Diamond Coal Company two mines and the work for the Gallup Southwester Coal Company. I have averaged a little better than \$4000.00 per year clear of office expense since that time.

Since opening up my office, I have had charged of placing 7 miles of concrete paving for the Town, designed and superintended

construction of a 7 million gallon circular concrete reservoir for the Town, also Imhoff sewerage tank, storm and sanitary sewers, 4 concrete slab bridges, 1-70 ft. span steel truss bridge, steam electric municipal power plant and made plans for the City Hall.

Among the important outside jobs I have had are the following;

Laying out and mapping the munitions area for the War Department at Ft. Wingate for the storage of 3 million pounds of TNT.

Final location and mapping of the Continental Oil Company pipe line from Gallup to Shiprock-98 miles

Surveying and locating mine spur and yards for the Richards Coal Company

In charge of diamond drill prospecting for coal for W.L. Weber of Rexburg, Idaho.

Construction Superintendent for Frost and Frost, Architects, El Paso, erecting Gallup Junior High School.

Land locations for the Midwest, P & R. and Marland Oil Companies.

I was elected and served two years as County Surveyor.

This completes the record to date.

I was made a Master Mason in Lebanon Lodge No 22, Gallup in November 1908, served as Master in 1913.

Made a Royal Arch Mason in Navajo Chapter No 18, Gallup July 1913, served as High Priest in 1917

Knighted in Baldwin Commandery No 12, Gallup, August 1914, served as Commander in 1918.

Received Scottish Rite Degrees in New Mexico Consistory, Santa Fe, ~~1924~~ September 1924.

Received the Shrine, Ballut Abyad Temple, Albuquerque, February 1916.

Appointed Grand Marshal, Grand Lodge A.F. & A.M. New Mexico February 1921, served as Grand Master 1928

---

Appointed Grand Chaplain, Grand Royal Arch Chapter of New Mexico February 1921, served as Grand High Priest 1927.

Innited in McKinley Chapter No. 16 Order Eastern Star in 1912, served two terms as Worthy Patron.

Elected Associate Grand Patron Grand Chapter O.E.S. February 1929.

Served on the Advisory Council Order DeMolay for Boys since the organization of the Gallup Chapter five years ago.

Charter Member and Past President of the Gallup Scottish Rite Club.

Charter Member and Past President of the Gallup Shrine Club

Charter Member and Past President of the Gallup Kiwanis Club.

Past President of the Gallup Tennis Club.

Member and Vice-President of the Board Education, Gallup Public Schools four years.

Member Board Trustees, Gallup Congregational Church.

Chairman McKinley County Red Cross during 1927.